SYMANTEC.

THE NORTON pcANYWHERE™

Remote Computing Any Way You Need It

User's Guide ◆

◆

◆

Now that you've accessed the world's best software, why not access the world?

FREE INTRODUCTORY OFFER ON COMPUSERVE

CompuServe® is the most powerful online service available, offering a wide variety of services and forums to over 1,000,000 active members worldwide. You can be a part of it with Symantec's Free Introductory Membership offer. All you need is a personal computer, telecommunications software, and a modem, and you can take advantage of all these powerful features:

- **ONLINE COMPUTER SUPPORT**
- **ELECTRONIC BROKERAGE SERVICES**
- **ELECTRONIC MAIL AND FAX**
- **ONLINE INTERACTION WITH THOUSANDS OF OTHER USERS**
- **ACCESS TO HUNDREDS OF DATABASES**

. . . .

One more powerful reason to take advantage of this free offer...

THE SYMANTEC FORUMS

GET ONLINE WITH SYMANTEC™ AND COMPUSERVE.

Now, there's a powerful, new channel of communication between Symantec and our customers. It's the Symantec Forum on the CompuServe Information Service, and it's a great way to stay on top of the latest information and ideas from Symantec.

The Symantec Forums are our way of making sure you get the most out of your Symantec software. Whether you're a novice user or an expert, we want to answer your questions, hear your suggestions, and know what you're thinking, about any of these Symantec products:

> ***The entire Peter Norton™ family of products and utilities, plus Time Line®, On Target™, Guide Line™, Actor®, Actor Professional®, MultiScope® Debuggers, Object Graphics™, Object Graphics™ C++, THINK C™, THINK Pascal™, Just Enough Pascal™, THINK™ Reference, Whitewater Resource Toolkit®, Zortech™ C++, GreatWorks™, Q&A™, MORE™, GrandView®, SAM™, SQZ!®, and JustWrite™.***

SYMANTEC REPRESENTATIVES AND USERS ARE AS CLOSE AS YOUR KEYBOARD.

With the Symantec Forums, you can interact with Symantec customer service representatives, who are available to answer your questions about any of our products.

It's never been so easy to get answers to your questions and share information with other users.

What's more, the Symantec Forums give you valuable, up-to-the-minute information, such as:

- ***Technical Bulletins***
- ***Trial Offers and Demo Software***
- ***Product Add-Ins***
- ***New Symantec Products***
- ***Upgrade Information***
- ***Sample Code***
- ***Tips and Shortcuts***
- ***Training Workshop Dates***

DON'T MISS THIS OPPORTUNITY TO BE A PART OF THE SYMANTEC FORUM AND COMPUSERVE.

IT'S FOR SYMANTEC CUSTOMERS ONLY, AND IT'S ABSOLUTELY FREE!

If you are already a CompuServe member, simply enter GO SYMANTEC at any prompt to enter the Symantec Forum. The free offer is limited to first time subscribers only. One per customer. Original reply cards only, please; copies will ***not*** be accepted.

Symantec, On Target, Guide Line, Object Graphics, Object Graphics C++, THINK C, THINK Pascal, Just Enough Pascal, THINK Reference, Zortech C++, GreatWorks, Q&A, MORE, SAM, and JustWrite are trademarks, and Time Line, Actor, Actor Professional, GrandView, MultiScope Debuggers, SQZ!, and Whitewater Resource Toolkit are registered trademarks of Symantec Corporation. CompuServe and CompuServe Magazine are registered service marks of CompuServe Incorporated. Other brands and products are trademarks of the respective holders and should be noted as such.
© 1993 Symantec Corporation. All rights reserved. Printed in U.S.A.

YES!

I Want to Get Online with Symantec.

Become a member of CompuServe today, and be a part of the Symantec Forums.
Complete, cut out, place in an envelope, and mail the coupon to the appropriate address and you'll receive:

- ***A private User ID number and password***
- ***$15.00 Introductory Usage Credit***
- ***A complimentary subscription to CompuServe Magazine, CompuServe's monthly computing magazine***

TO GET ONLINE EVEN FASTER, CALL TOLL-FREE 1-800-848-8199, ASK FOR REPRESENTATIVE #124.
OUTSIDE THE U.S. AND CANADA, CALL 1-614-457-0802

United States and Canada
CompuServe Information Services
Department 124
P.O. Box 20212
Columbus, OH 48220-9988
Telephone: 1-800-848-8199,
ask for representative #124

United Kingdom (UK)
CompuServe Customer Services
15/16 Lower Park Row
P.O. Box 676
Bristol BS99 1YN
United Kingdom
Telephone: 0800 289 378

Germany (D)
CompuServe Customer Services
Jahnstrasse 2
D-8025 Unterhaching b. Munchen
Germany
Free phone: 0130 37 32
Fax (+49) (89) 66 55 0-255

Switzerland
Free phone: 155-3179

Other European countries call
(+44) (272) 255 111

FREE INTRODUCTORY COMPUSERVE RESPONSE CARD — MAIL IN TODAY!

Name

Address

City State

Country ZIP/Postal Code

Phone

SYMANTEC.™

SYMANTEC.

IMPORTANT: CAREFULLY READ THIS LICENSE AGREEMENT BEFORE OPENING YOUR DISK PACKAGE. By opening the sealed diskette package, you indicate your acceptance of the Symantec License Agreement.

License Agreement

This is a legal agreement between you, the end user, and Symantec Corporation ("Symantec"). The enclosed Symantec software program (the "SOFTWARE") is licensed by Symantec for use only on the terms set forth herein. Please read this license agreement. Opening this diskette package indicates that you accept these terms. If you do not agree to these terms, return the full product with proof of purchase to your dealer within 30 days for a full refund.

- GRANT OF LICENSE. Symantec grants to you the right to use one copy of the enclosed SOFTWARE on a single terminal connected to a single computer (i.e., single CPU) or to a network server. If you install the SOFTWARE on a network server, you must purchase a separate copy of the SOFTWARE for each computer terminal that will be used to operate the SOFTWARE.

- GRANT OF NETWORK LICENSE. If you are acquiring a version of the SOFTWARE specifically configured for network use, Symantec grants to you the right to use the SOFTWARE on a LICENSED COMPUTER NETWORK as provided below. A computer network is any combination of two or more terminals that are electronically linked and capable of sharing the use of a single software program. A LICENSED COMPUTER NETWORK is a computer network for which you have acquired and dedicated at least one (1) Symantec standard version of the SOFTWARE (which can run standalone or as a network server). For additional users to use the SOFTWARE on the network you must acquire LAN NODES or network packs. If the documentation accompanying the SOFTWARE expressly so permits, you may convert a standard version copy of such SOFTWARE to operate as a LAN NODE, provided that no other use is made of such copy (i.e., it is not used as a standalone or network server copy). You may have as many copies of the SOFTWARE in simultaneous use on the network as is specifically authorized in the documentation accompanying the SOFTWARE. Where no specific authorization is given in the documentation, one LAN NODE or network pack is required for each copy of the SOFTWARE in simultaneous use on the network.

- COPYRIGHT. The SOFTWARE is owned by Symantec or its suppliers and is protected by United States copyright laws and international treaty provisions. You may either (a) make two copies of the SOFTWARE solely for backup or archival purposes provided that you reproduce all copyright and other proprietary notices that are on the original copy of the SOFTWARE provided to you, or (b) transfer the SOFTWARE to a single hard disk provided you keep the original solely for backup or archival purposes. Note: Users of the Commander Link feature, in Norton Commander, and only those users, are permitted to make one copy of the Norton Commander software in either 3-1/2" or 5-1/4" media to permit the transfer between two computers. You may not copy the written materials accompanying the SOFTWARE.

- OTHER RESTRICTIONS. You may not rent or lease the SOFTWARE. You may not reverse engineer, decompile, disassemble, or create derivative works from the SOFTWARE.

- DUAL MEDIA SOFTWARE. If the SOFTWARE package contains both 3-1/2" and 5-1/4" disks, then you may use only the disks appropriate for your single-user computer or LICENSED COMPUTER NETWORK. You may not use the other disks on another computer or computer network, or loan, rent, lease, or transfer them to another user.

- LANGUAGE SOFTWARE. If the SOFTWARE is a Symantec language product, then you have a royalty-free right to include object code derived from the libraries in programs that you develop using the SOFTWARE and you also have the right to use, distribute, and license such programs to third parties without payment of any further license fees, so long as a copyright notice sufficient to protect your copyright in the program in the United States and any other country to which the program is distributed is included in the graphic display of your program and on the labels affixed to the media on which your program is distributed.

- GOVERNMENT LICENSEE. If you are acquiring the SOFTWARE on behalf of any unit or agency of the United States Government, the following provisions apply:

The Government acknowledges Symantec's representation that the SOFTWARE and its documentation were developed at private expense and no part of them is in the public domain.
The Government acknowledges Symantec's representation that the SOFTWARE is "Restricted Computer Software" as that term is defined in Clause 52.227-19 of the Federal Acquisition Regulations (FAR) and is "Commercial Computer Software" as that term is defined in Subpart 227.471 of the Department of Defense Federal Acquisition Regulation Supplement (DFARS). The Government agrees that:

(i) if the SOFTWARE is supplied to the Department of Defense (DoD), the SOFTWARE is classified as "Commercial Computer Software" and the Government is acquiring only "restricted rights" in the SOFTWARE and its documentation as that term is defined in Clause 252.227-7013 (c) (1) of the DFARS, and

(ii) if the SOFTWARE is supplied to any unit or agency of the United States Government other than DoD, the Government's rights in the SOFTWARE and its documentation will be as defined in Clause 52.227-19 (c) (2) of the FAR.

RESTRICTED RIGHTS LEGEND. Use, duplication, or disclosure by the Government is subject to restrictions as set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013. Symantec Corporation, 10201 Torre Avenue, Cupertino, CA 95014.

- EXPORT LAW ASSURANCES. You acknowledge and agree that the SOFTWARE is subject to restrictions and controls imposed by the United States Export Administration Act (the "Act") and the regulations thereunder. You agree and certify that neither the SOFTWARE nor any direct product thereof is being or will be acquired, shipped, transferred or reexported, directly or indirectly, into any country prohibited by the Act and the regulations thereunder or will be used for any purpose prohibited by the same.

- GENERAL. This Agreement will be governed by the laws of the State of California, except for that body of law dealing with conflicts of law. Should you have any questions concerning this Agreement, or if you desire to contact Symantec for any reason, please write: Symantec Customer Sales and Service, 10201 Torre Avenue, Cupertino, CA 95014.

SYMANTEC.™

Software Limited Warranty

To the original customer only, Symantec provides the following warranties.

SIXTY (60) DAY SATISFACTION GUARANTY. For sixty (60) days after date of delivery of the SOFTWARE to you, if you are dissatisfied with the SOFTWARE for any reason you may return the complete product, with your receipt, to Symantec or an authorized dealer, postage prepaid, during the sixty (60) day period for a full refund.

LIMITED WARRANTY FOR NEXT SIXTY (60) DAYS. Symantec warrants that for the sixty (60) days following the initial thirty day period, as evidenced by a copy of your receipt, or until the SOFTWARE is modified by you, whichever period is shorter, that: (1) The SOFTWARE, unless modified by you, will perform substantially the functions described in the documentation provided by Symantec. (2) The media on which the SOFTWARE is furnished will be free from defects in materials and workmanship under normal use.

Your sole remedy under the warranty during this sixty (60) day period is that Symantec will undertake to correct within a reasonable period of time any reported "SOFTWARE Error" (failure of the SOFTWARE to perform substantially the functions described in the documentation), correct errors in the documentation, and replace any magnetic media which proves defective in materials or workmanship on an exchange basis without charge. In order to make a claim under this warranty you must return the defective item with your receipt to Symantec or an authorized dealer, postage prepaid, within ten (10) days after the warranty period. If Symantec is unable to replace defective media or if Symantec is unable to provide corrected SOFTWARE or corrected documentation within a reasonable time, Symantec will, at its sole and exclusive option, either replace the SOFTWARE with a functionally equivalent program at no charge to you or refund the license fee of the SOFTWARE. These are your sole and exclusive remedies for any breach of warranty during this sixty (60) day period.

Symantec does not warrant that the SOFTWARE will meet your requirements, that operation of the SOFTWARE will be uninterrupted or error-free, or that all SOFTWARE errors will be corrected. Symantec is not responsible for problems caused by changes in the operating characteristics of computer hardware or computer operating systems which are made after the release of the SOFTWARE nor for problems in the interaction of the SOFTWARE with non-Symantec software. Symantec will have no responsibility to replace or refund the license fee of media damaged by accident, abuse or misapplication.

THE ABOVE WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY SYMANTEC, ITS EMPLOYEES, DISTRIBUTORS, DEALERS OR AGENTS SHALL INCREASE THE SCOPE OF THE ABOVE WARRANTIES OR CREATE ANY NEW WARRANTIES.

SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. IN THAT EVENT, ANY IMPLIED WARRANTIES ARE LIMITED IN DURATION TO NINETY (90) DAYS FROM THE DATE OF DELIVERY OF THE SOFTWARE. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

Limitations of Remedies

REGARDLESS OF WHETHER ANY REMEDY SET FORTH HEREIN FAILS OF ITS ESSENTIAL PURPOSE, IN NO EVENT WILL SYMANTEC BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR SIMILAR DAMAGES, INCLUDING ANY LOST PROFITS OR LOST DATA ARISING OUT OF THE USE OR INABILITY TO USE THE SOFTWARE OR ANY DATA SUPPLIED THEREWITH EVEN IF SYMANTEC OR ANYONE ELSE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

SOME STATES DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

IN NO CASE SHALL SYMANTEC'S LIABILITY EXCEED THE PURCHASE PRICE FOR THE SOFTWARE.

The Norton pcANYWHERE

User's Guide

Copyright © 1990, 1991 Symantec Corp.

All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of Symantec Corp., 10201 Torre Avenue, Cupertino, CA 95014-2132, (408) 253-9600.

Symantec Corp. reserves the right to revise publication and to make changes from time to time in the content hereof without obligation of Symantec Corp. to notify any person of such revision or changes.

The use of trademarks or other designations is for reference purposes only. The following trademarks are used in this manual:

IBM PC, XT, AT and PS/2 are trademarks of International Business Machines.

MS-DOS is a registered trademark of Microsoft Corp.

Hayes Smartmodem is the trademark of Hayes Microcomputer Products, Inc.

Lotus 1-2-3 and Symphony are the trademarks of Lotus Development Corp.

dBASE III and Framework are the trademarks of Ashton-Tate.

WordPerfect is a trademark of WordPerfect Corp.

Sidekick is the trademark of Borland International.

DESQview is the trademark of Quarterdeck Office Systems.

ACS and ACS^2 are trademarks of Network ProductsCorp.

NetWare and Novell are registered trademarks of Novell, Inc.

LANtastic is the trademark of Artisoft.

3Com is the trademark of 3Com Corp.

Customer Service and Technical Support

Customer Service

Symantec Corp.
10201 Torre Ave.
Cupertino, CA 95014

(800) 441-7234 U.S.A. and Canada only
(408) 255-3344 fax

Hours: 7:00 am to 5:00 pm Pacific Time
Monday through Friday

503-465-8430

Technical Support

Symantec Corp.
2500 Broadway
Suite 200
Santa Monica, CA 90404

(310) 449-4900
(310) 453-0636fax
~~(408) 973-9598~~ Symantec BBS
503-484-6699
Hours: 7:00 am to 5:00 pm Pacific Time
Monday through Friday

International

Europe	Symantec Europe Kanaalpark 145 Postbus 1143 2321 JV Leiden Holland	31 71 353 111 phone 31 71 353 150 fax
Australia	Symantec Pty. Ltd. Upper Level 408 Victoria Road Gladesville, NSW 2111 Australia	61 2 879 6577 phone 61 2 879 6805 fax
All other	Symantec Corp. 10201 Torre Ave. Cupertino, California 95014 U.S.A.	(408) 252-3570 phone (408) 253-4992 fax

Table of Contents

INTRODUCING NORTON PCANYWHERE TECHNOLOGY i

PC-to-PC Remote Computing ii
Your Norton pcANYWHERE Future vii

CHAPTER ONE: REQUIREMENTS & INSTALLATION 1

Backing Up Your Disks 1
Installation 4

CHAPTER TWO: NORTON PCANYWHERE CONCEPTS 15

What Is Remote Computing?..16
What Are Hardware Configurations?..........................19
A Word About Computer Names..................................23
Beyond Norton pcANYWHERE: The "Wide-Area" Environment..23
Putting The Pieces Together..26

CHAPTER THREE: QUICK-START GUIDE 37

Quick-Start Guide...37
Screens & Keystrokes..52
Screen Forms...57
Quick Connect:...59

CHAPTER FOUR: HARDWARE CONFIGURATIONS 65

When To Use Hardware Configurations.........................66
Working With Configurations.......................................67

CHAPTER FIVE:USING NORTON PCANYWHERE/HOST 83

Quick Connect..87
Begin Host Operation...91
View/Modify List of Callers...95
Caller Information Fields..97
Select Active Configuration..108
Preferences...109

CHAPTER SIX: USING NORTON PCANYWHERE/REMOTE 131

Quick Connect........136
Connect Via List of Hosts........139
View/Modify List of Hosts........145
Host Information Fields........146
Preferences........152
Automated Procedures........176
Working With Procedures........180
Run Script........190

CHAPTER SEVEN: SESSIONS 191

Remote Session Options........193
Host Session Options........202
Norton pcANYWHERE Command Lines........206
File Transfer........210
Terminal Options Menu........223
Calling A Host From A Terminal........229
Ending a Session with AWLOGOFF........240

CHAPTER EIGHT: NORTON PCANYWHERE SCRIPT LANGUAGE 241

When Scripts Are Run........242
Script File Concepts........243
Script File Execution........249
Script File Error Handling........249
Reserved Variables........250
Commands........252
Script Language Command Reference........253-342

CHAPTER NINE: UTILITIES 343

Hardware Diagnostics........346

View Log Files 355
Modify Terminal Configurations 363
Terminal Parameters 365
Play Back Session/Screen 375
Preprocess A Script 378

CHAPTER TEN: TROUBLESHOOTING 379

Part 1 Messages 379
Part 2 Problem Solving 402
  Serial Communications 402
  Terminal Emulation 406
  Keyboard 407
  Graphics 408
  Other Problems 409
  Tips for Remote Control of Windows 410
  Technical Notes 413

APPENDIX A: MODEMS AND CABLES 415

Modem Connections 416
Direct Connections 421
Modem Switch Settings 425

APPENDIX B: TERMINAL EMULATION 429

Terminal Emulation Keys 429-440

APPENDIX C:
GLOSSARY 441

INDEX 457

Introducing Norton pcANYWHERE Technology

Norton pcANYWHERE represents a new generation of Norton pcANYWHERE technology. It builds on Symantec's reputation for producing reliable, high quality communications and remote computing products that offer a user real value for their technology dollar. Norton pcANYWHERE provides complete, high-speed PC-to-PC remote computing and general communications capabilities. Norton pcANYWHERE is the only communications program you'll ever need.

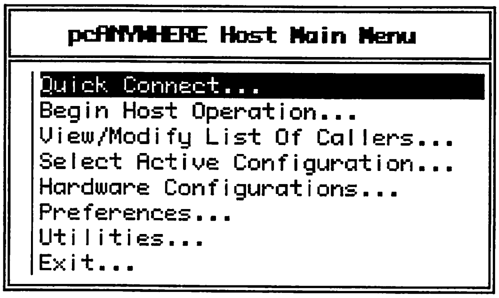
Users who rely on Norton pcANYWHERE technology consistently report favorable results. During routine

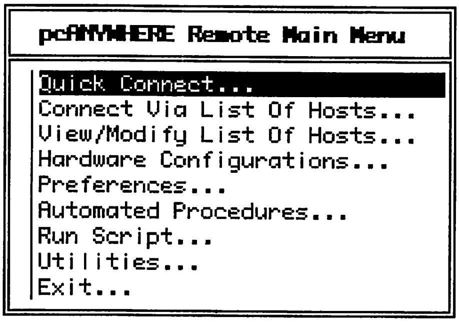
Symantec follow-up, customers say the Norton pcANYWHERE family of products has saved them incredible amounts of time, travel miles and money. Corporate users and resellers alike say Norton pcANYWHERE technology redefines the worlds of support, training, and collaborative computing.

PC-to-PC Remote Computing

Norton pcANYWHERE allows you to control a host PC from any PC, PS/2 or compatible, or terminal via a modem or direct serial connection.

- Norton pcANYWHERE consists of two products, Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote that control, respectively, the host and remote operations of a remote computing session.
- It is fully menu-driven, incorporating a broad range of capabilities within a very straightforward user interface.


pcANYWHERE Host Main Menu
Quick Connect...
Begin Host Operation...
View/Modify List Of Callers...
Select Active Configuration...
Hardware Configurations...
Preferences...
Utilities...
Exit...


pcANYWHERE Remote Main Menu
Quick Connect...
Connect Via List Of Hosts...
View/Modify List Of Hosts...
Hardware Configurations...
Preferences...
Automated Procedures...
Run Script...
Utilities...
Exit...

HOST OPERATION

A host is a computer that someone "takes over" using another computer.

- The host user could be someone in need of technical support or training.
- The host computer could be your machine in your office, when you're not there. Or maybe the host is your machine at home, when you're at work or on the road.
- The host user could be your colleague on a project team and by initiating a remote session, you drop by to see in real time what the colleague is proposing. Maybe you use the "voice-first" option to say hello and exchange some general comments before you create a common session on your computer screens to look at the issue in detail.

REMOTE OPERATION

The remote user is the driver at the wheel of the remote computing vehicle. The remote user takes over the host machine:

- to watch the programs running on the host machine,.
- to run the host machine (when no one is using the host machine),
- to transfer files between the host and the remote,
- or perhaps even to show an inexperienced user on the host machine how to accomplish some unfamiliar task or troubleshoot an unidentified problem.

BI-DIRECTIONAL HIGH SPEED FILE TRANSFER

Either the host or remote user may transfer files during a Norton pcANYWHERE remote computing session.

- A full-menu background file transfer option is available in which the host user may go on with normal computing while a remote accesses their system and transfers files.
- A file transfer program called AWSEND is available for remote or host initiated file transfer. AWSEND affords enhanced data compression and even allows file transfer with a terminal emulation program using one of the XMODEM protocols.

GENERAL ASYNCHRONOUS COMMUNICATIONS

Norton pcANYWHERE includes general asynchronous communications capabilities.

- VT-220 terminal emulation and file transfer capabilities augment other features to provide connections to a mini- or mainframe computer.
- Access a general information service, such as Dow Jones, CompuServe or MCI Mail, through your modem.
- Serial communications rates up to 115,200 are available.

UTILITIES

Norton pcANYWHERE offers still more integrated capability under the menu item called *Utilities*. Utilities include:

- *Hardware Diagnostics*, which provides the ability to test your keyboard, video and communications ports for synchronicity.
- Norton pcANYWHERE/Host *Utilities* give you the ability to modify supported terminal configurations to let you dial from any terminals.
- Norton pcANYWHERE/Remote *Utilities* include a session *Play Back* feature that records the activities of a session and saves them to a disk file, allowing you to review the recorded sequence at a later time.

- Common to both Norton pcANYWHERE/Host and Remote is a feature that allows the user to choose from several different report formats to view or print a summary of host or remote calls.

INTEGRATED FEATURES

- Built-in process control language for automating repetitive functions— such as unattended file transfer to multiple sites after business hours
- Full support for all graphics modes with automatic graphics translation
- Built-in hardware diagnostics
- Simultaneous printing at host and remote locations
- Programs can be loaded into higher memory and removed from memory
- Automated dial directory
- Unlimited passwords
- Voice-first connection capability and voice/data switching
- Call logging and session record and playback functions

IF YOU NEED LAN CAPABILITY

Norton pcANYWHERE/LAN

The new generation of Norton pcANYWHERE technology also includes a new product: Norton pcANYWHERE/LAN. Norton pcANYWHERE and Norton pcANYWHERE/LAN are separate products designed to work together as companions in a wide-area remote computing environment. Norton pcANYWHERE/LAN allows you to do remote computing across, into and out of a LAN.

- Without leaving their own workstation, technical support people using Norton pcANYWHERE/LAN can take over a colleague's machine to answer computing questions and solve technical problems. Depending on the physical layout of the LAN, that colleague might be in the next office, several floors away, or in another building.

- Norton pcANYWHERE/LAN allows two people working together on a team to interact—looking at the same live screen—in the context of a spreadsheet, a project scheduling program, a piece of document processing software, a database, an accounting program, or any other software program. Viewing the same screen, they can talk by telephone or Norton pcANYWHERE/LAN can open a chat window where they can "discuss" the particulars.
- Norton pcANYWHERE/LAN supports dialing out through a modem on the network to take control of another Norton pcANYWHERE host at a different site. In addition, a Norton pcANYWHERE remote or a remote terminal can dial in through a modem on the LAN to take control of any available workstation on the LAN.
- Norton pcANYWHERE/LAN creates a gateway which turns a workstation with an attached modem into a distributed modem server. The gateway is a background function allowing the workstation which "publishes" it to be used in the foreground for other things. "Publishing," in this sense, simply means making the modem available to the "public."
- In addition to Norton pcANYWHERE/LAN's own gateway, users on a LAN or from a distant site can access a LAN workstation through an existing asynchronous communications server which employs the NASI/NCSI interface standards.

If your remote computing needs encompass a LAN environment, Norton pcANYWHERE/LAN is the perfect companion to your Norton pcANYWHERE product. See your dealer or call Symantec for further information on Norton pcANYWHERE/LAN.

Your Norton pcANYWHERE Future

Symantec thanks you for selecting the most advanced implementation of remote computing technology available: Norton pcANYWHERE. The Symantec team is committed to supporting your purchase with continuing "heads-up" product development and solid customer support. Our product direction is molded in large part by needs and suggestions from our customer base. Be sure to send in your registration card to assure you're in the communications loop to receive up-to-date information on current and future developments in the Norton pcANYWHERE family of technology.

1

Requirements & Installation

Norton pcANYWHERE requires an IBM PC, XT, AT, PS/2 or compatible workstation running MS-DOS 2.0 or higher with at least 320K RAM available for Norton pcANYWHERE.

Backing Up Your Disks

Before starting Norton pcANYWHERE, you must back up the disks that came with your Norton pcANYWHERE package. This way, if something happens to these master disks, you'll always have a copy. As you probably already know, disks can be damaged by heat, magnets, pressure, and dirt. Whether you have 5 1/4-inch disks or 3 1/2-inch disks, you should follow the procedures described below.

If you have a hard disk and one or two removable disk (floppy) drives, follow the back-up procedures below. Make sure you have your Norton pcANYWHERE master disks ready, along with blank, formatted disks onto which you'll copy the masters.

BACKING UP WITH ONE FLOPPY DRIVE

Use DISKCOPY.COM to copy the Norton pcANYWHERE/Host and/or Norton pcANYWHERE/Remote onto a set of back-up disks.

1. From the directory where DISKCOPY.COM is located, type

   `diskcopy a: a:` and press ↵.

   DISKCOPY will ask you to place the source disk (Norton pcANYWHERE/Host Disk 1) in drive A:. Then press ↵.

2. When prompted, remove the Norton pcANYWHERE/Host Disk 1 and insert the first blank disk for your backup copy. Press ↵. Continue swapping the two disks as DISKCOPY prompts you, until it tells you that the master disk is copied. Then DOS prompts,

   Copy another Y/N?

3. Remove the backup disk from drive A: and label it, "Norton pcANYWHERE/Host Disk 1 backup."

4. Type `Y` and press ↵. Then repeat steps 2 and 3 for the remaining Norton pcANYWHERE/Host and/or Norton pcANYWHERE/Remote disks.

5. When you have finished copying disks, type `N` and press ↵ to indicate that you do not wish to copy any more disks.

BACKING UP WITH TWO FLOPPY DRIVES

First, find the disk subdirectory that contains DOS or the DOS DISKCOPY.COM file. Use DISKCOPY.COM to copy the Norton pcANYWHERE/Host program onto a set of back-up disks.

1. From the directory where DISKCOPY.COM is located, type

   `diskcopy a: b:` and press ↵.

   DISKCOPY will ask you to place the source disk (Norton pcANYWHERE/Host Disk 1) in drive A:. Then press ↵.

2. When the program instructions appear, place the Norton pcANYWHERE/Host Disk 1 disk in drive A:. Place a blank, formatted backup disk in drive B:.

3. Press ↵.

   The DISKCOPY program copies your master disk onto the blank disk. When the copying is done, the program prompts.

   Copy another Y/N?

4. Remove the backup disk from drive B: and label it, "Norton pcANYWHERE/Host Disk 1 backup."

5. Type `Y` and press ↵. Then repeat steps 2 through 4 for the remaining Norton pcANYWHERE/Host and/or Norton pcANYWHERE/Remote disk or disks.

6. When you have finished copying disks, type `N` and press ↵ to indicate that you do not wish to copy any more disks.

INSTALLATION

If you have purchased the complete Norton pcANYWHERE system, you have actually bought two separate products handled in one package. Normally, Norton pcANYWHERE/Host is installed on the machine that will serve as the remote access host. For example, a user can install Norton pcANYWHERE/Host on their machine to receive technical support from a person using Norton pcANYWHERE/Remote. Norton pcANYWHERE/Remote is installed on the machine that will be giving the support or using the host machine as a resource. Each program may be installed on a single machine.

However, both Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote may be installed, one after another, on the same machine. This may be applicable if someone is "telecommuting" from home. Their office machine would, of course, need a copy of Norton pcANYWHERE, too. They could then, for example, run Norton pcANYWHERE/Remote when they're at home to use their office machine as the host. In turn, while at the office, they could use their office machine's Norton pcANYWHERE/Remote to access their home machine as a host.

In any case, the installation for both Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote is menu driven and very straightforward.

HOST INSTALLATION

The installation process is quick, easy and highly flexible. There are two primary installation options: the *Full Installation* and the *Additional Installation for WINDOWS*. The *Full Installation* will first install Norton pcANYWHERE/Host.

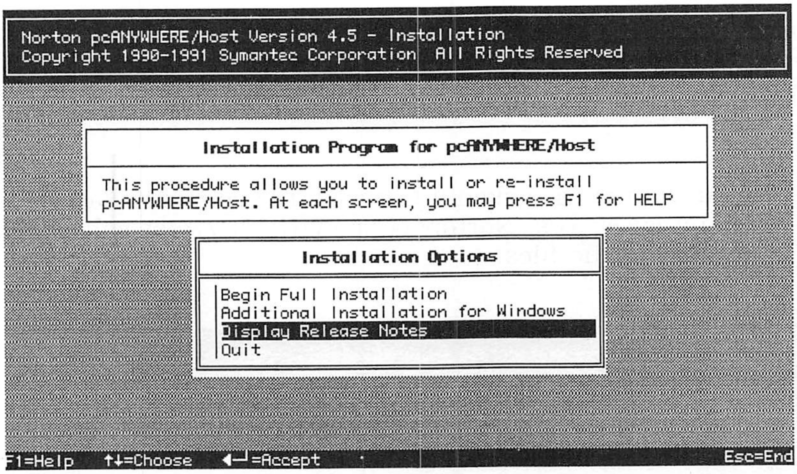
When completed, it will offer you the option of continuing with the advanced installation which will allow you to remotely run WINDOWS. If you do not presently have WINDOWS, you simply skip this final stage. When you have

WINDOWS, you can rerun the Norton pcANYWHERE INSTALL program from within the installed directory and proceed with the *Additional Installation for WINDOWS.* In this way, you do not have to reinstall all of the Norton pcANYWHERE/Host files. For more detailed instructions, please see below.

Initial Installation

1. To begin, insert the Host diskette . At the DOS prompt, type `install` and press ↵.

You will now see the Norton pcANYWHERE *Installation Options* menu. If this is not your first time running this program (i.e, you have already installed Norton pcANYWHERE/Host), then please skip to the section on **Additional Installation for WINDOWS.**



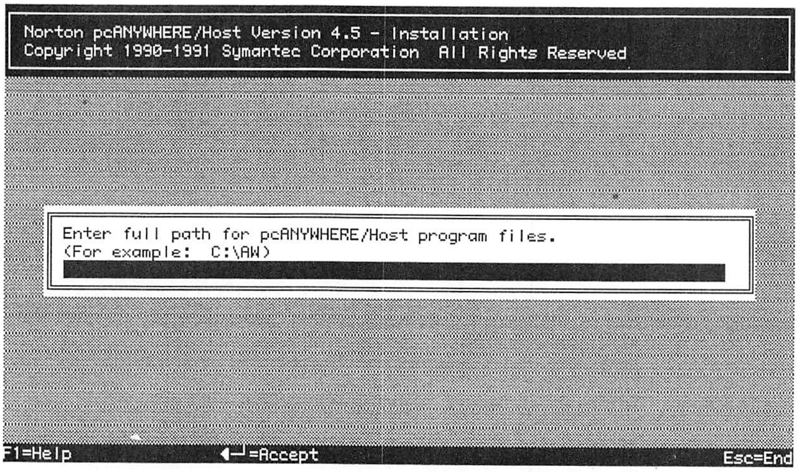
Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation All Rights Reserved

Installation Program for pcANYWHERE/Host

This procedure allows you to install or re-install pcANYWHERE/Host. At each screen, you may press F1 for HELP

2. Select the *Full Installation* option from the *Installation Options* menu. This should be done <u>regardless</u> of whether or not you currently have WINDOWS installed on your computer.

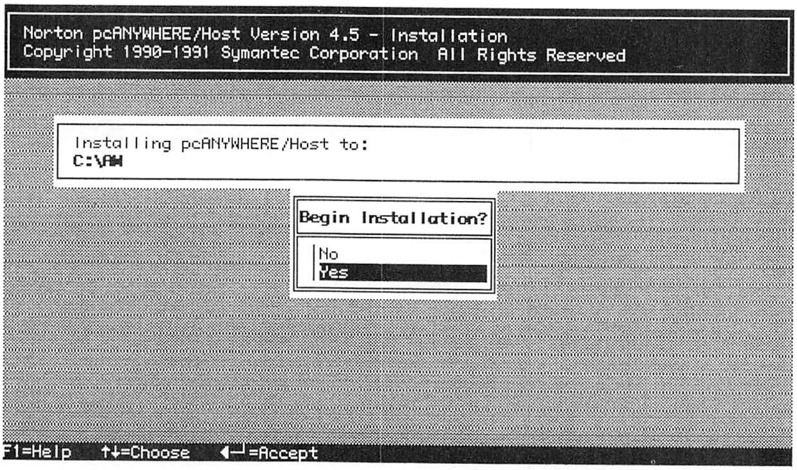
3. You will need to specify the <u>full</u> path for the Norton pcANYWHERE/Host files.



```
Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation  All Rights Reserved

Enter full path for pcANYWHERE/Host program files.
(For example:  C:\AW)

F1=Help          ◄┘=Accept                                  Esc=End
```

When prompted, please enter the Licensee Name which is the name to whom Norton pcANYWHERE/Host is licensed.

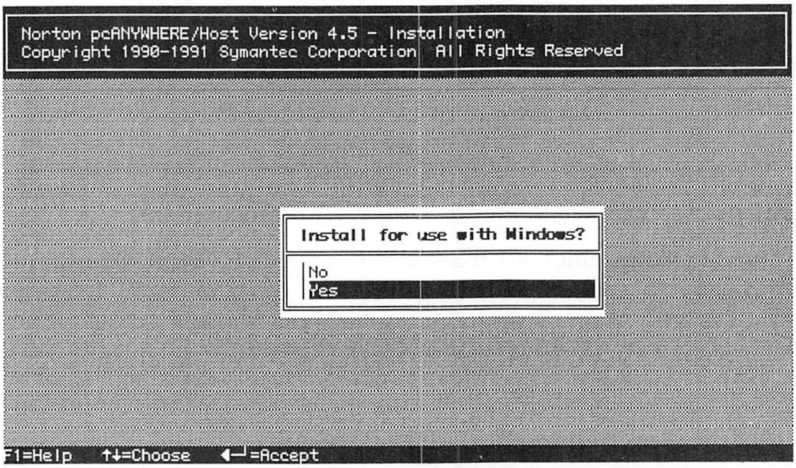
4. You will now be asked if you wish to begin installation. If you answer *Yes*, Norton pcANYWHERE/Host will begin installing the files.



```
Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation  All Rights Reserved

Installing pcANYWHERE/Host to:
C:\AW

                    Begin Installation?
                    No
                    Yes

F1=Help  ↑↓=Choose  ◄┘=Accept
```

Throughout the installation process, the program will prompt you as it copies each of the product disks and will keep you up-to-date on the installation process.

5. When the installation has been completed, you will be asked if you want to continue with the advanced installation process which will enable the remote operation of WINDOWS. If you do not presently have WINDOWS, please skip to Step #9.



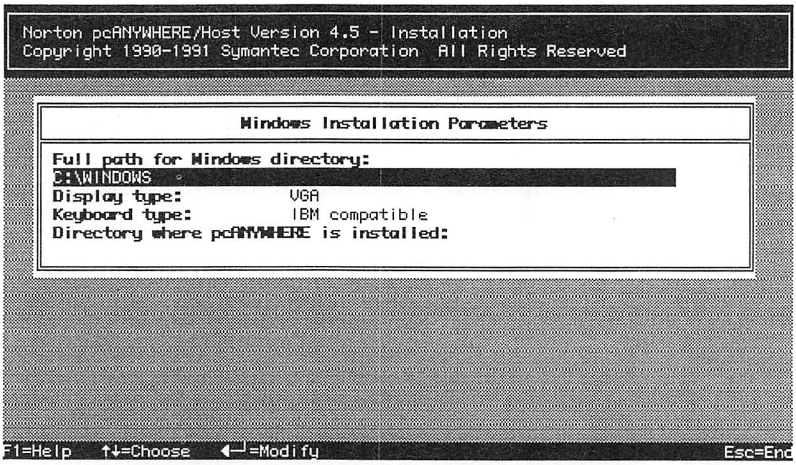
```
Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation All Rights Reserved

                    Install for use with Windows?

                    No
                    Yes

F1=Help   ↑↓=Choose   ←┘=Accept
```

NOTE

If you have installed Norton pcANYWHERE/Host but do not have WINDOWS, you will still be able to run WINDOWS remotely. However, the screen updates will be very slow. Once you install WINDOWS, you can rerun the Norton pcANYWHERE/Host INSTALL program and simply proceed with the *Additional Installation for WINDOWS*.

---

6. Now, you have to provide the INSTALL program with the following information so that WINDOWS can be controlled remotely:



Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation All Rights Reserved

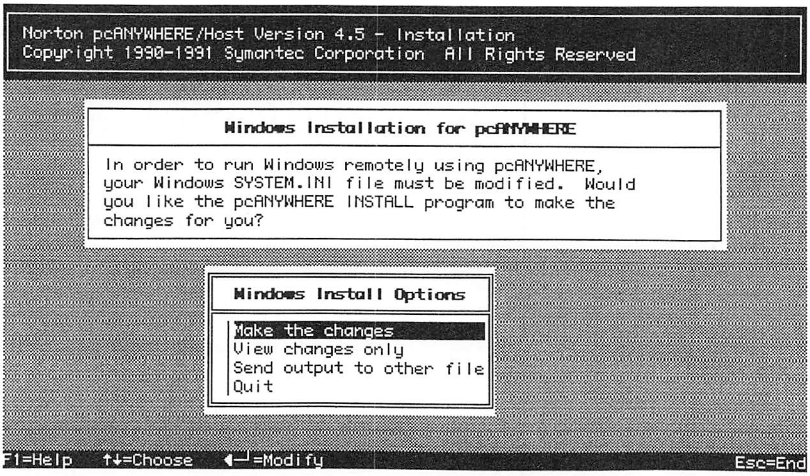
Windows Installation Parameters

Full path for Windows directory:
C:\WINDOWS
Display type: VGA
Keyboard type: IBM compatible
Directory where pcANYWHERE is installed:

NOTE

You must have either an EGA or VGA monitor to be able to run WINDOWS remotely.

7. Once you have entered the necessary information, the INSTALL program will offer to automatically modify your WINDOWS System.INI files. Simply highlight the *Make the Changes* option and press ↵.



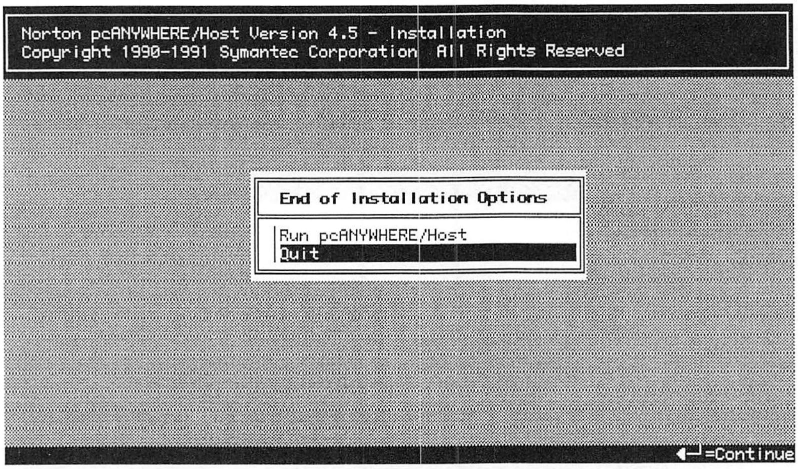
Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation All Rights Reserved

Windows Installation for pcANYWHERE

In order to run Windows remotely using pcANYWHERE, your Windows SYSTEM.INI file must be modified. Would you like the pcANYWHERE INSTALL program to make the changes for you?

8. The INSTALL program will now copy the files required to remotely run WINDOWS to your computer. As usual, the program will keep you up-to-date on the status of the installation process.

9. Once the Installation has been completed, you can either choose to run the Norton pcANYWHERE/Host program or simply return to DOS.

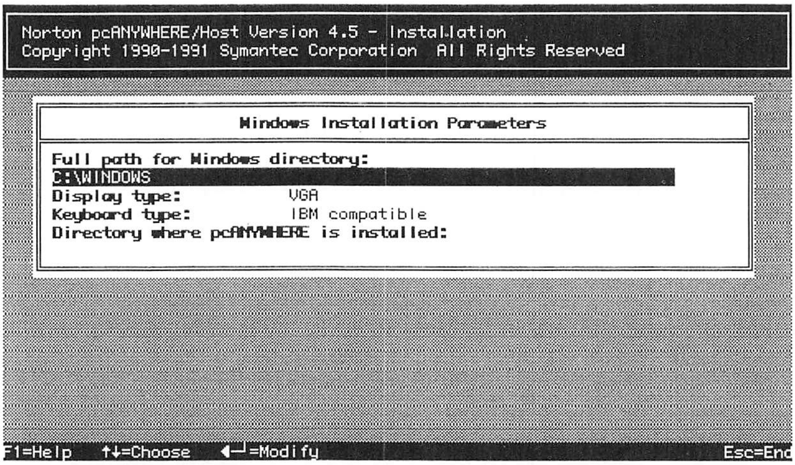


Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation All Rights Reserved

Additional Installation for WINDOWS

1. Since you have previously installed the base program, simply select the *Additional Installation for WINDOWS* option from the *Installation Options* menu.

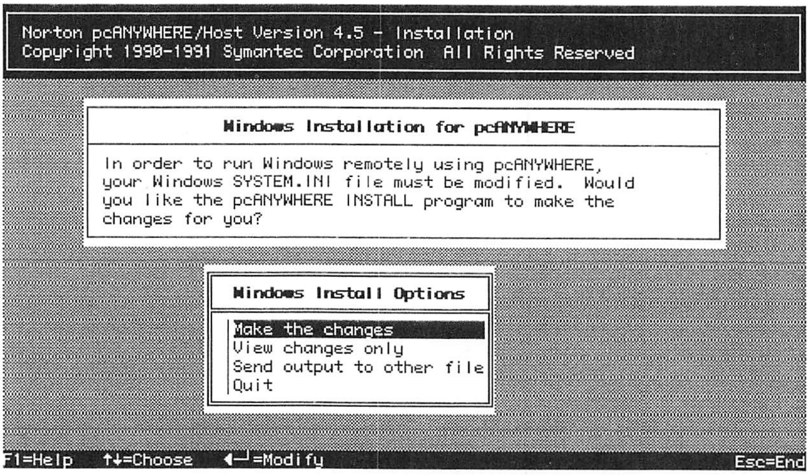
2. Now, you have to provide the INSTALL program with the following information so that WINDOWS can be controlled remotely:



```
Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation  All Rights Reserved

                 Windows Installation Parameters

Full path for Windows directory:
C:\WINDOWS
Display type:            VGA
Keyboard type:           IBM compatible
Directory where pcANYWHERE is installed:

F1=Help   ↑↓=Choose   ↵=Modify                                Esc=End
```

NOTE
You must have either an EGA or VGA monitor to be able to run WINDOWS remotely.

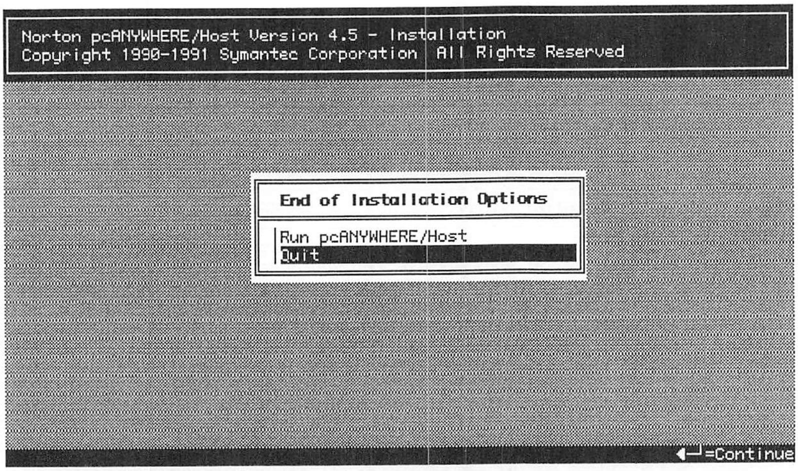
3. Once you have entered the necessary information, the INSTALL program will offer to automatically modify your WINDOWS System.INI files. Simply highlight the *Make the Changes* option and press ↵.



```
Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation  All Rights Reserved

              Windows Installation for pcANYWHERE

In order to run Windows remotely using pcANYWHERE,
your Windows SYSTEM.INI file must be modified.  Would
you like the pcANYWHERE INSTALL program to make the
changes for you?

                 Windows Install Options

                Make the changes
                View changes only
                Send output to other file
                Quit

F1=Help   ↑↓=Choose   ↵=Modify                                Esc=End
```

4. The INSTALL program will now copy the files required to remotely run WINDOWS to your computer. As usual, the program will keep you up-to-date on the installation process.

5. Once the Installation has been completed, you can either choose to run the Norton pcANYWHERE/Host program or simply return to DOS.



Norton pcANYWHERE/Host Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation All Rights Reserved

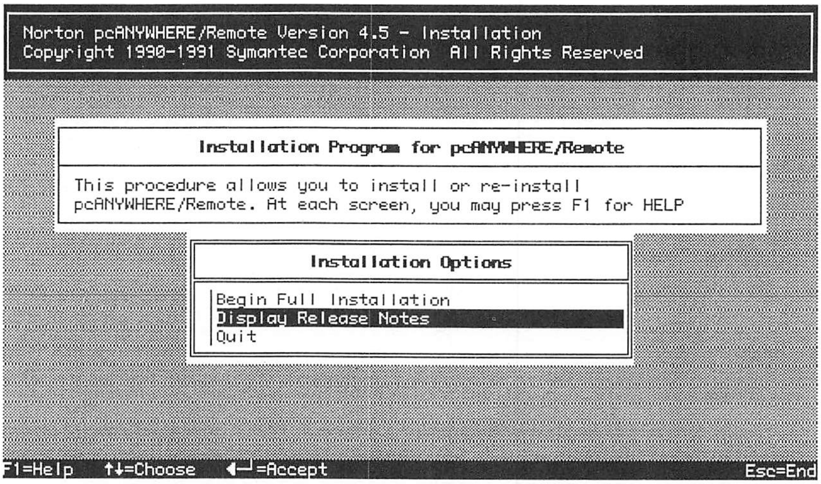
NOTE:
For precautionary reasons only, Norton pcANYWHERE creates a backup of the WINDOWS System.INI file each time it is run. The backups are labeled as System.AW0 through System .AW9. The file called System.AW0 is your System.INI file prior to installation. If at any time you wish to return your system to its configuration prior to running Norton pcANYWHERE, simply replace the System.INI file with the System.AW0.

For additional information on running Norton pcANYWHERE with WINDOWS, see the **Tips for Remote Control of Windows** section in Chapter 10, Troubleshooting.

REMOTE INSTALLATION

To begin:

1. Place the backup copy of Norton pcANYWHERE/Remote Disk 1 in drive A:. Then type A: to work from drive A:.
2. From the prompt for drive A:, type `install` and press ↵.



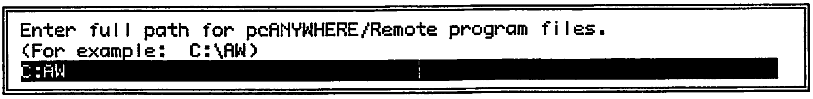
Norton pcANYWHERE/Remote Version 4.5 - Installation
Copyright 1990-1991 Symantec Corporation All Rights Reserved

Installation Program for pcANYWHERE/Remote

This procedure allows you to install or re-install pcANYWHERE/Remote. At each screen, you may press F1 for HELP

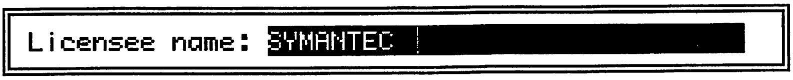
Follow the on-screen instructions through the simple installation of Norton pcANYWHERE/Remote. The **<F1>** key provides on-line Help if you need it. Use the ⇑ ⇓ arrows to choose and ↵ to enter what you have just typed or to accept your menu item choice.

You may include path instructions for the placement of your Norton pcANYWHERE/Remote files. Consult your DOS manual or a knowledgeable colleague for more information about path names.



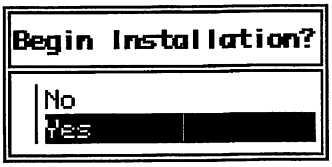
```
Enter full path for pcANYWHERE/Remote program files.
(For example:  C:\AW)
C:AW
```

After you have indicated where you want Norton pcANYWHERE/Remote installed, you are asked to enter the name to whom Norton pcANYWHERE is licensed.



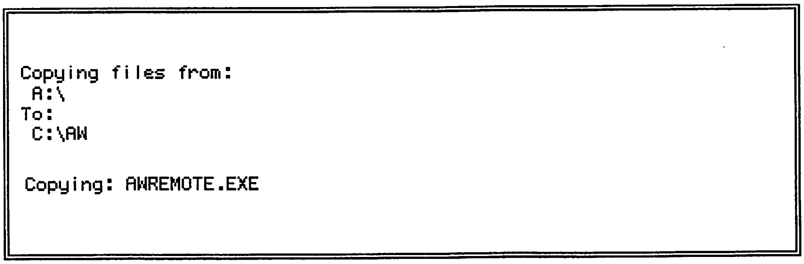
```
Licensee name: SYMANTEC
```

And then it prompts:



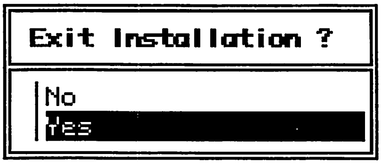
```
Begin Installation?
No
Yes
```

If you choose *Yes*, Norton pcANYWHERE will prompt you through the process of copying each of the product disks and keep you up-to-date on the copying progress.

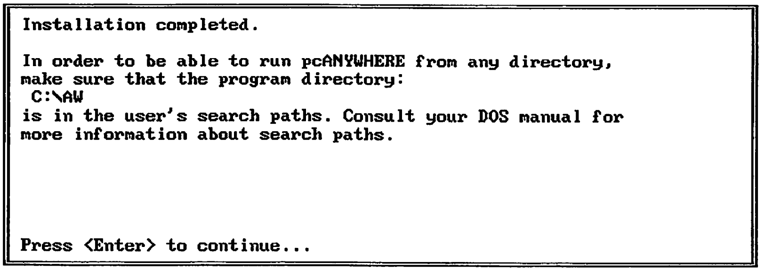


```
Copying files from:
 A:\
To:
 C:\AW

 Copying: AWREMOTE.EXE
```

When the files have all been copied to the named location, Norton pcANYWHERE/Remote is installed. Choose *Yes* from the next menu to exit the installation program:

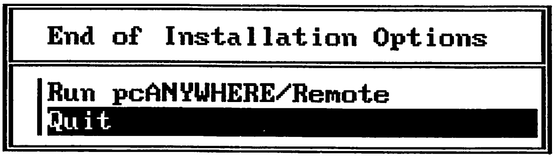


Having successfully completed the installation, the following screen appears to remind you that to run Norton pcANYWHERE from any directory, the program directory must be in your search path.



```
Installation completed.

In order to be able to run pcANYWHERE from any directory,
make sure that the program directory:
 C:\AW
is in the user's search paths. Consult your DOS manual for
more information about search paths.




Press <Enter> to continue...
```

The screen above ends the installation sequence. The menu below allows you to *Run Norton pcANYWHERE/Remote*, or *Quit* and return to DOS.



2

Norton pcANYWHERE Concepts

Welcome to Norton pcANYWHERE. Now that Norton pcANYWHERE is installed and ready to run, it's time to learn about the fundamentals of remote computing. Armed with a grasp of Norton pcANYWHERE's terms and concepts, you will find that using Norton pcANYWHERE becomes second nature. Some of the terms we use here appear in *italics*. These are terms you should remember when you start using Norton pcANYWHERE for your own remote computing sessions.

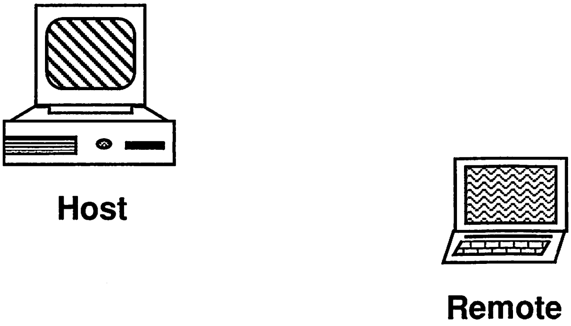
What Is Remote Computing?

Remote computing gives you a new way to expand your work environment. Norton pcANYWHERE works with your computer system and modem to open the door to other, possibly faraway, computers and their resources. That's why we call Norton pcANYWHERE *remote access software.*

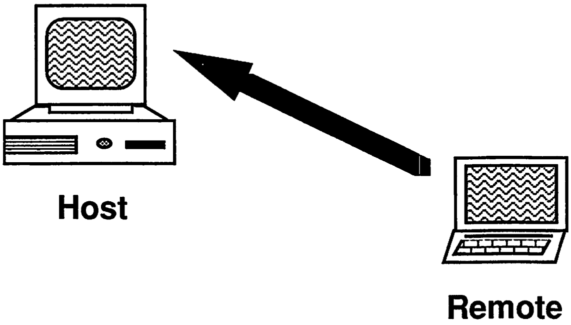
But that's not all. Remote computing is a two-way street. Not only can Norton pcANYWHERE help you access another computer and use it as your own, but someone else can reach your system as well. The other person can then help you with a problem you may be having, or simply use the hardware, software, and data resources on your system.

REMOTE COMPUTING SOFTWARE

Whatever your plans for remote access, there are two fundamental terms that are essential: *host* and *remote.* During a remote computing *session,* the remote user controls the host computer—the remote user is in the driver's seat, and the host computer becomes his computer. The host system may be using Norton pcANYWHERE software, in which case we call it an *ANYWHERE host.* If a host does not have Norton pcANYWHERE (maybe the remote is calling CompuServe, for example), we call it a non-*ANYWHERE* host.



Before the session, the host computer is still controlled only by the host user. The host user can run Norton pcANYWHERE/Host to allow other users to access the host computer.



To take control of an ANYWHERE host, the remote user runs Norton pcANYWHERE/Remote. Once a *connection* to a host computer is established and the session begins, the remote user may run the host computer as if it were his own.

During a remote computing *session*, the remote user sees the same display as the host user, and he can run applications on the host computer, or watch as the host user works. He can use the host's printer and access the host's data. The host and remote users can *chat* together by typing in messages on their keyboards, which then appear in a chat window on both screens.

REMOTE COMPUTING HARDWARE

Norton pcANYWHERE is the software part of the connection between the remote and host PCs. There has to be a physical, hardware connection as well. Although you may be familiar with the different hardware components in the PC world, it is worthwhile to see how each piece plays a part in remote computing.

PCs

For any remote computing session you need at least two PCs. As described above, one is known as the *host PC* while the other is called the *remote PC*. A remote computing session is in progress when the remote PC's screen shows the same information as the host PC's screen, and when the keystrokes entered at the remote PC keyboard are accepted and processed by the application software running on the host PC. For example, after loading the Norton pcANYWHERE/Host software into the memory of the host PC, the host PC user might run WordPerfect. At that point, the remote PC user can connect to the host PC and remotely run the WordPerfect program, or join the host PC user as he is using WordPerfect to provide product training or help him solve a problem.

Modems

Modems are the devices used to transmit and receive data over ordinary phone lines. With one attached to a remote PC and one attached to the host PC, it is possible to carry on a remote computing session between two distant computers over standard telephone lines.

What Are Hardware Configurations?

Many different kinds of physical connections can be used for remote computing with Norton pcANYWHERE. You store the parameters for each connection type in a *hardware configuration.* Before attempting to establish a remote computing session, both the host and remote PC users must choose the hardware configuration to be used for that session. In most cases, Norton pcANYWHERE assembles the information for you, so that you only need to know a few facts about the hardware you are using.

Norton pcANYWHERE is serial communication software. This means that data will be transmitted and received through a *serial communication port* on the back of your PC. Norton pcANYWHERE supports three different types of serial configurations.

Modem Configurations

Modem configurations are used when the PC will communicate over phone lines. Both external and internal modems are supported.

Direct Connect Configurations

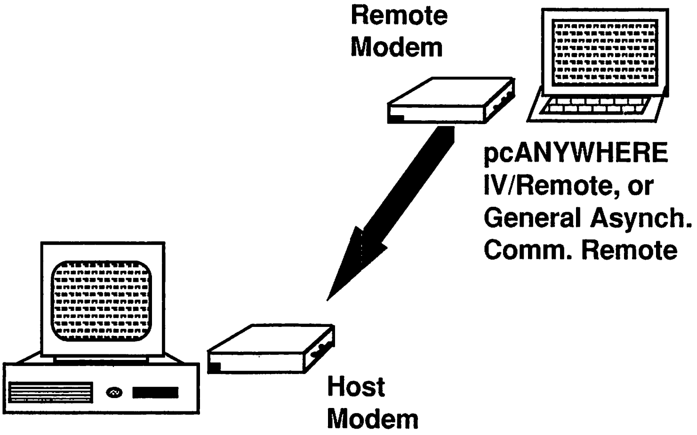
Direct connect configurations are used when the serial ports on the host and remote PCs are physically connected together with an appropriate cable.

Interrupt 14 Configuration

The Interrupt 14 configuration is used only in conjunction with other vendor's software that specifically supports an Interrupt 14 interface. Refer to Chapter 4, Hardware Configurations, for more information on Interrupt 14.

REMOTE COMPUTING CONNECTIONS

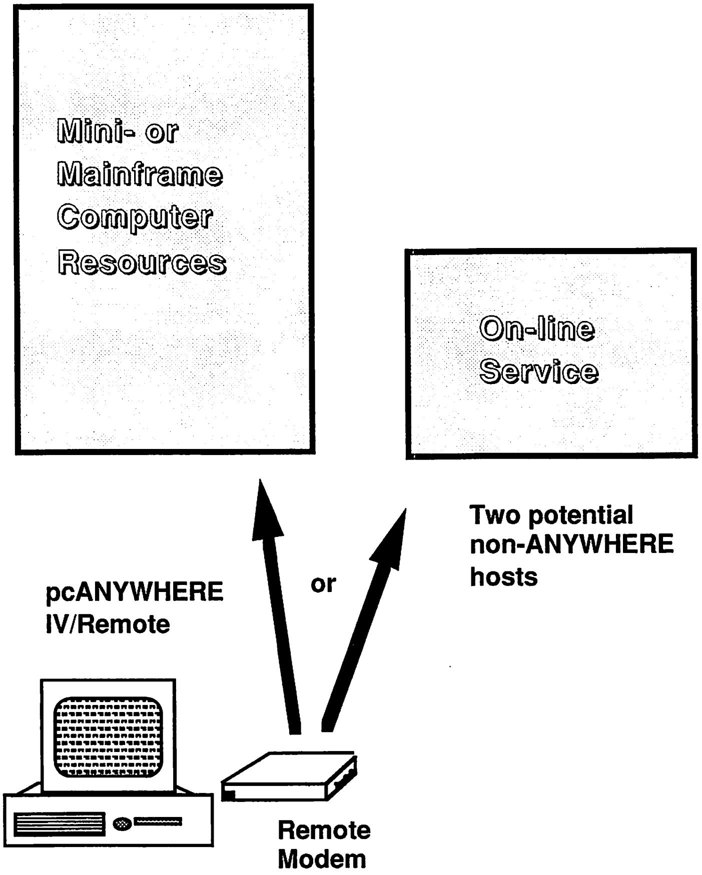
This is the most common remote computing connection. Here a modem sends the data over a telephone line, allowing the remote user to run the host machine as if they were sitting at it. The ability to run a distant computer on the screen of the computer wherever you are makes telecommuting, remote support, and collaborative processing possible.



Point-to-point remote computing via telephone lines saves time, travel miles and money for critical computing activities such as support, training and collaborative processing.

TERMINAL EMULATION

One of the most flexible aspects of Norton pcANYWHERE is its ability to have on-line sessions with non-ANYWHERE hosts. Norton pcANYWHERE/Remote can emulate a VT-220 terminal to access mini- and mainframe computers.

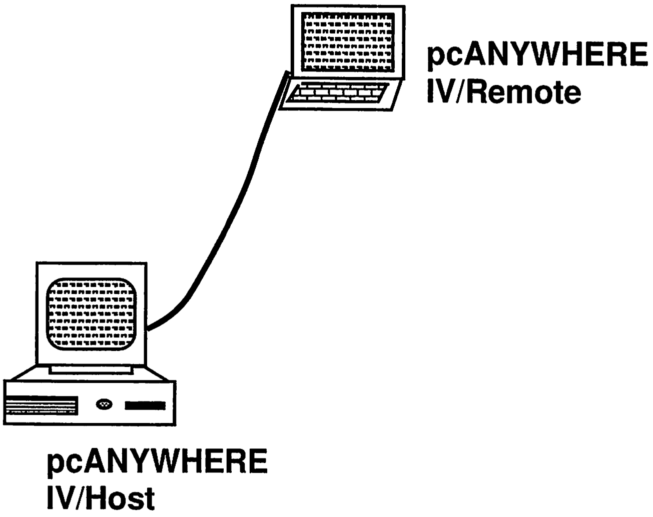


Terminal emulation and file transfer capabilities allow Norton pcANYWHERE/Remote to access an information service or a mini- or mainframe computer.

DIRECT CONNECTIONS

In any situation where the host or remote PC is using a serial configuration requiring a modem, the modems can be replaced by a direct connection cable. Of course the PCs must be in close proximity to make this practical. Direct connections can generally take place at higher speeds than modem connections.

Direct Connect to Norton pcANYWHERE/Host



Suppose you have a second PC in your office that is dedicated to some special data processing function. If that PC does not have a CRT screen, you can directly attach your own PC to the dedicated computer, and use Norton pcANYWHERE when necessary to control the dedicated machine.

A Word About Computer Names

Norton pcANYWHERE expects you to assign a unique *computer name* to every computer which will use the software. This name will come in handy when you want to know which computer just dialed into your host PC or when you connect to computers running the companion product, Norton pcANYWHERE/LAN. Using names will make your use of Norton pcANYWHERE more personal. The name you choose should clearly identify the PC in question. For example, use names like "Bob's AT" or "Accounting Dept. PS/2".

Beyond Norton pcANYWHERE: The "Wide-Area" Environment

If Norton pcANYWHERE modem or direct connections can meet all of your remote computing needs, you can skip this discussion of Norton pcANYWHERE/LAN and go right to the *Quick-Start Guide*. However, if there is a LAN, or if there could be a LAN, in your remote computing reach, the rest of this chapter will give you an orientation to the concepts and possibilities of "wide-area" remote computing. Those possibilities are enhanced by another product in the pcANYWHERE technology family: Norton pcANYWHERE/LAN.

LANS

A Local Area Network (LAN) is simply a group of connected computers. The connection is usually physical and accomplished by one of a variety of wiring schemes. Because they are connected, they are typically capable of sharing resources (data files, printers, etc.). Norton pcANYWHERE/LAN takes advantage of the physical LAN wiring and its transport protocol to allow the necessary data exchange between the host and remote PCs. Norton pcANYWHERE/LAN also has a built-in gateway function which adds the modems attached to any LAN workstation to the list of resources on the LAN available to be shared.

Asynchronous Communication Servers

Some LAN installations have a need to share a large number of modems. To accommodate this need, they use an asynchronous communication server. This is generally a dedicated LAN PC which may have anywhere from 1 to 32 (or more) attached modems and special control software. Two examples of such servers are the Network Products ACS2 and the Novell NACS. Norton pcANYWHERE/LAN is compatible with these products, making it possible to dial into or out of a LAN equipped with such a server.

Asynchronous communication server (ACS) configurations are very similar to gateway configurations in that they allow standalone PCs to access LAN PCs and vice versa. In this case, however, the gateway PC is the PC containing the third party ACS hardware and running their ACS software.

Network Configurations And Gateways

Frequently you want to access a host computer on your network. Or, you want to make your computer available as a host for a remote user on the network. Norton pcANYWHERE/LAN supports the two most popular types of network connections:

- *NetWare* is today's most popular network operating system. *NetWare/IPX* is the technique (protocol) for sending data from one PC to another on a NetWare LAN. This is the preferred configuration type when using Norton pcANYWHERE/LAN on a Novell NetWare network.
- *NetBIOS* is a standard networking protocol introduced by IBM. Most network operating systems (including NetWare) have support for NetBIOS. Network configurations for IBM PC Network, LAN Manager, LANtastic, and 3COM networks should be set to NetBIOS.

Specifying a network configuration for a host or remote PC always implies that the data leaving or entering that PC will be traveling over a network. However, the eventual destination for that data may be a computer that is not connected to the network, but in fact, is attached to a modem at a remote location.

The Norton pcANYWHERE/LAN gateway function provides the bridge between the LAN PC and standalone PC. The workstation being used as the gateway PC actually uses two configurations simultaneously: the *incoming configuration* is the configuration used by the remote PC to connect to the gateway. The *outgoing configuration* is the configuration used by the gateway to connect to the host PC.

For example, if your remote PC is your home computer attached to a modem, and you wish to dial into your office PC connected to the company NetWare LAN, you may dial into any LAN workstation with a locally attached modem (the *gateway PC*). All you need is to run the Norton pcANYWHERE/LAN gateway software on the gateway PC, and set the incoming configuration to "Serial with modem" and the outgoing configuration to "NetWare /IPX."

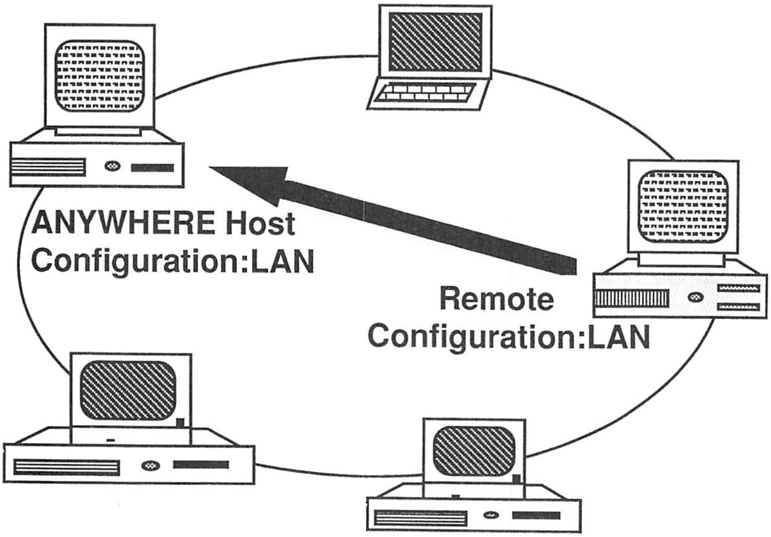
Gateway computers have one additional name, called a *gateway class*. This class is just a short code that you can choose to group types of gateways together. For example, if you set up several gateways for use by LAN PCs to dial out of the network with Hayes 2400 baud modems, you might decide to assign each of those gateways a class of "H24". Then, Norton pcANYWHERE/LAN users needing to dial out would be able to simply choose any class "H24" gateway.

Putting The Pieces Together

This section will show you visual representations of the many ways you can use Norton pcANYWHERE and Norton pcANYWHERE/LAN. Although the possibilities are endless, the illustrations that follow should guide you in applying the software to your application.

CONNECTIONS WITHIN A LAN

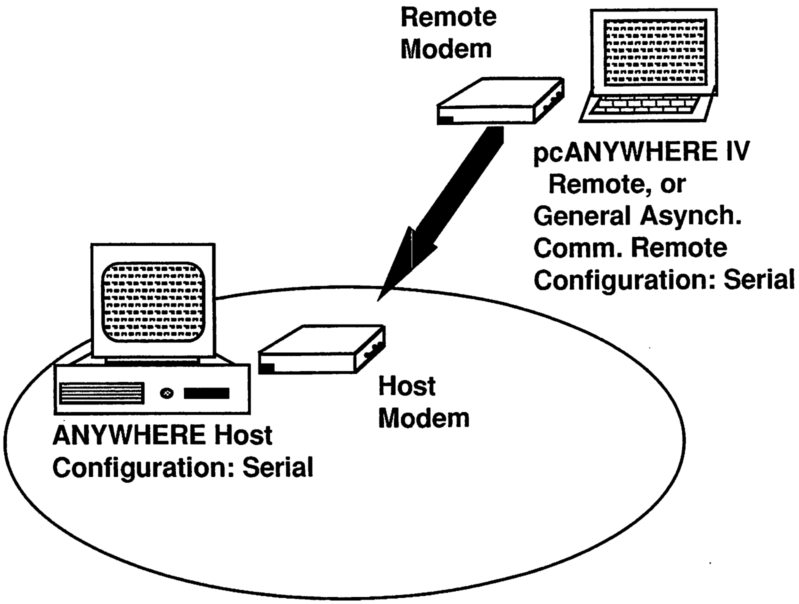
LAN Remote Calling LAN Host



You can use Norton pcANYWHERE/LAN to reach another user on your network. In this case, both PCs would be using one of the two LAN configurations, NetWare/IPX or NetBIOS.

REMOTE ACCESS TO A LAN

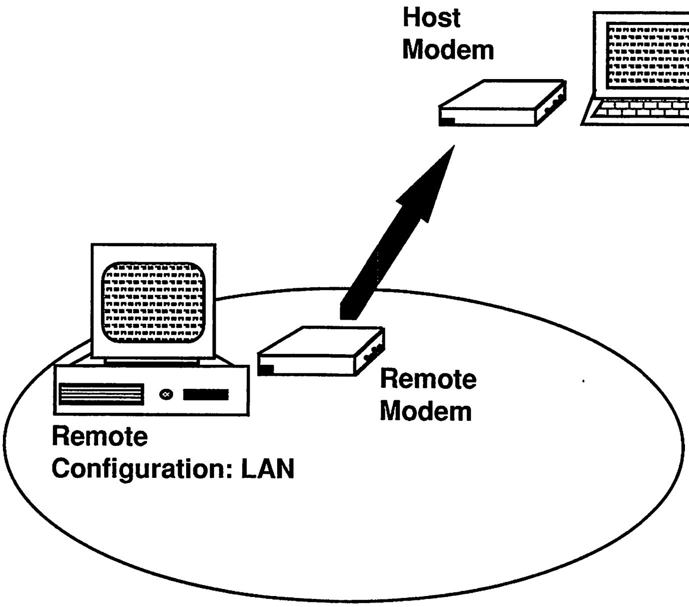
Standalone Remote Calling LAN Host



This diagram illustrates the classical use of remote access to a LAN. With Norton pcANYWHERE/LAN, the remote system can be a PC running Norton pcANYWHERE/Remote serial communication software or any PC or terminal using one of Norton pcANYWHERE/LAN's supported dial-in terminal emulations. The host PC in this case will be using a "Serial with Modem" configuration.

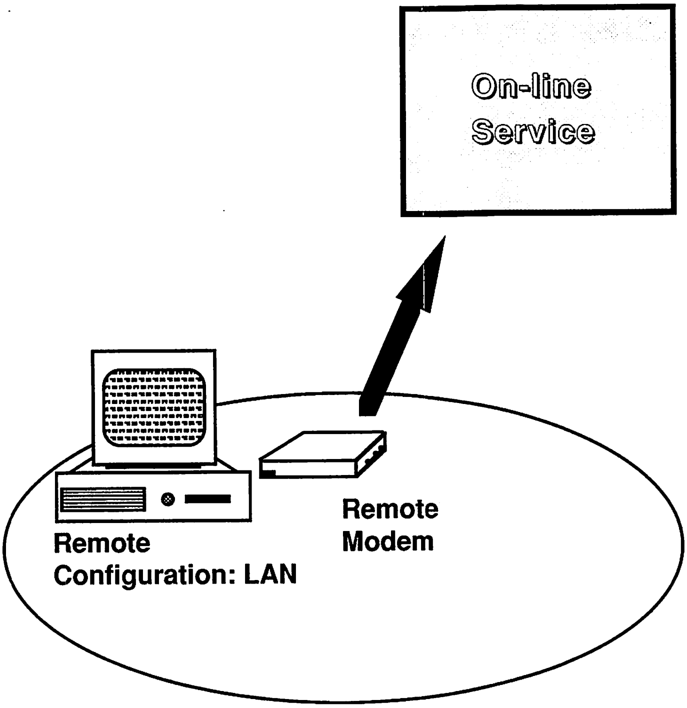
DIALING OUT OF A LAN

LAN Remote Calling Standalone Host



A typical use of this configuration is calling your home PC from your office to fetch some data files. Or, perhaps, you need to dial to a remote office to offer support to a remote operator having trouble with word processing software.

LAN Remote Calling On-line Service

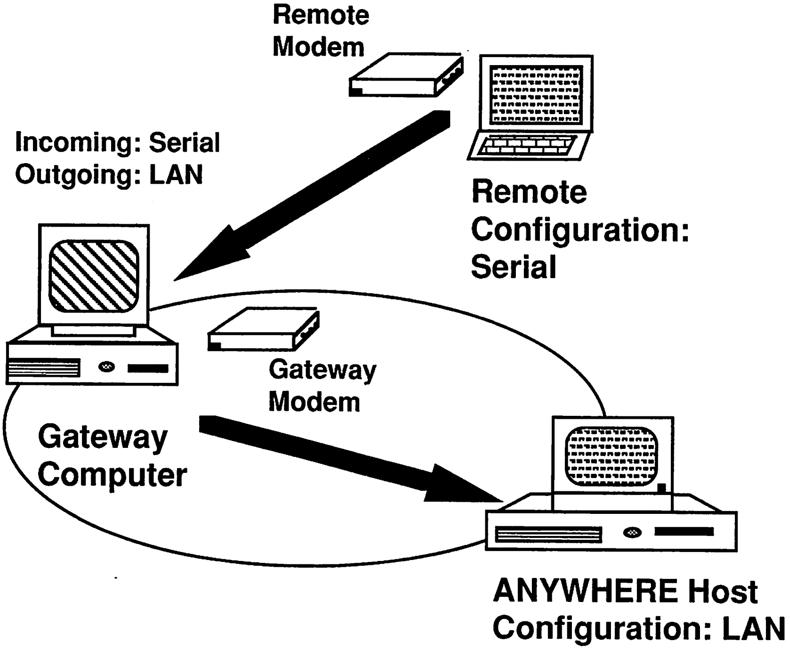


Since Norton pcANYWHERE/LAN also contains standard terminal emulation and file transfer capabilities, any LAN PC can directly dial into information services such as CompuServe.

SHARING MODEMS USING A GATEWAY

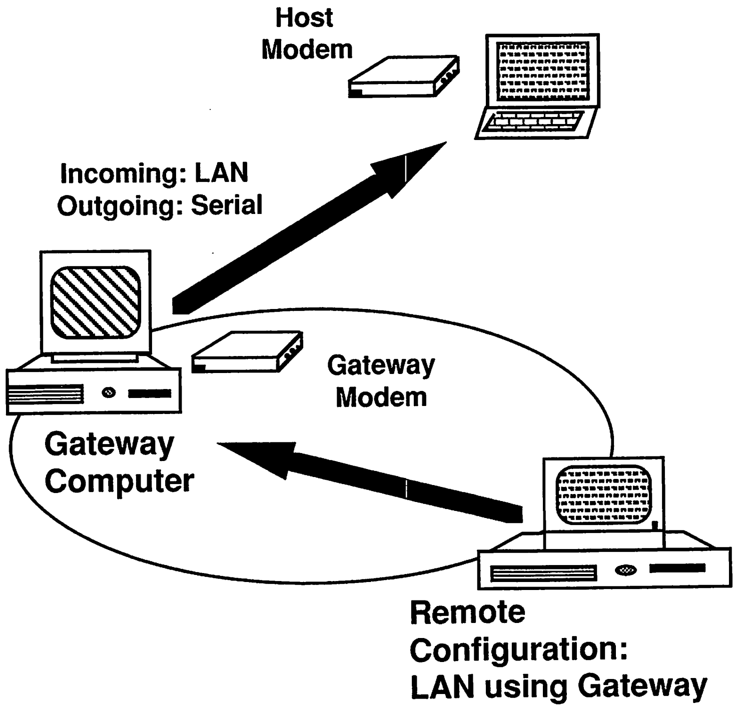
The following group of illustrations show how Norton pcANYWHERE/LAN's gateway function provides the functionality of a non-dedicated, single port, asynchronous communication server. On each illustration, note how the gateway's incoming and outgoing configurations relate to the host and remote PC.

Standalone Remote Calling LAN Host Via Gateway



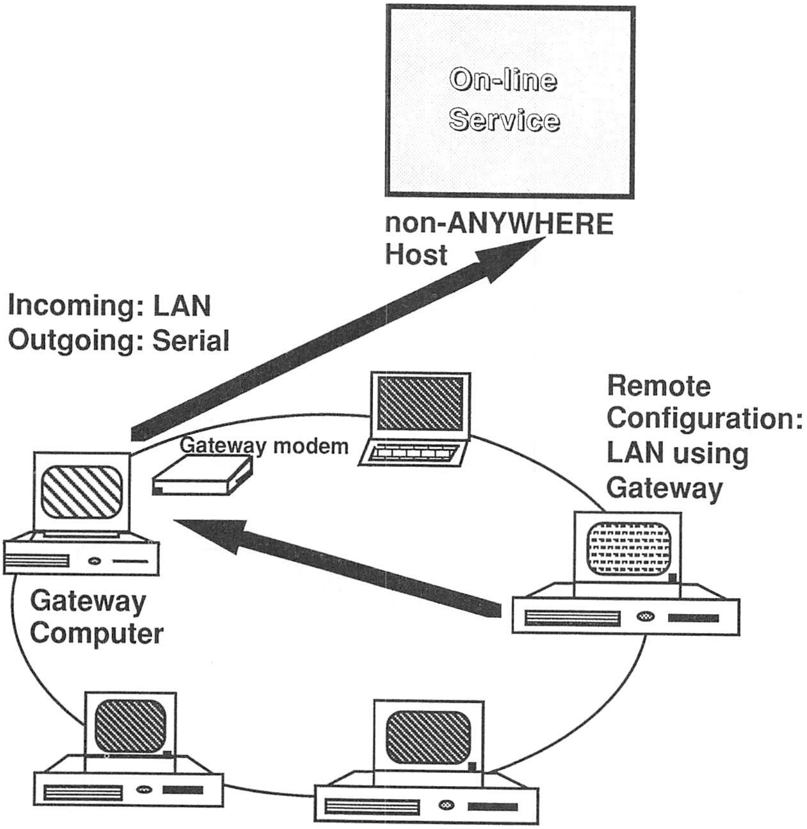
When the host PC does not have a locally attached modem, this setup allows the remote user to reach the host PC through some other LAN PC set up as a Norton pcANYWHERE/LAN gateway.

LAN Remote Calling Standalone Host Via Gateway



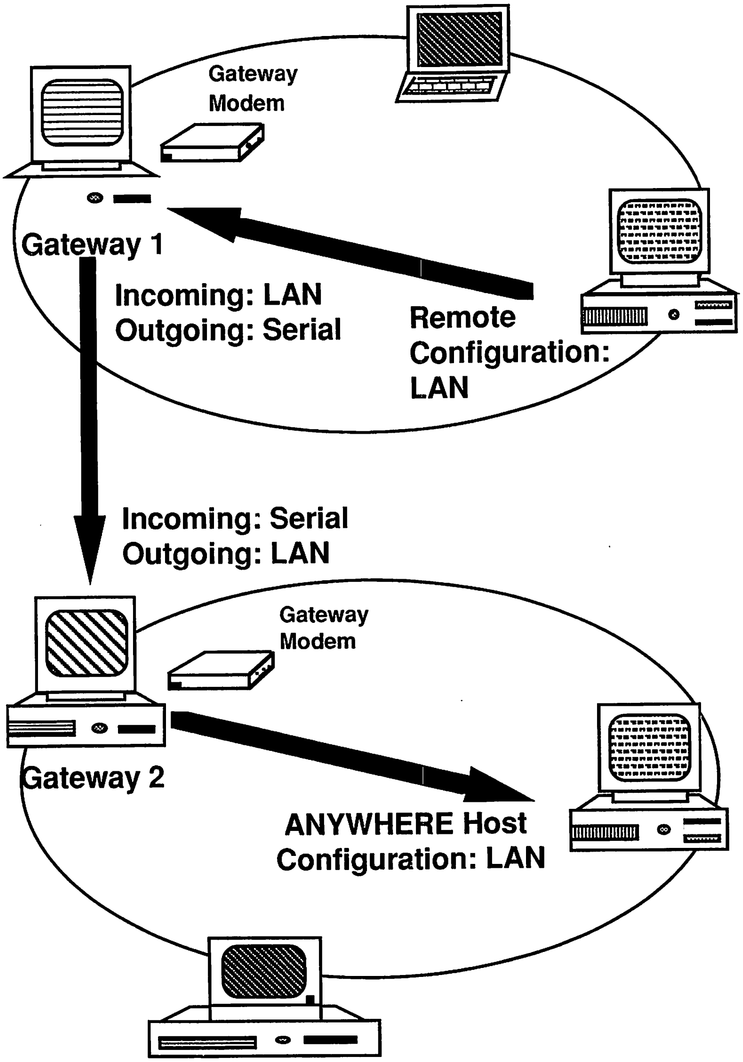
This scenario is the reverse of the previous situation. It again takes advantage of the Norton pcANYWHERE/LAN gateway function to dial out of a LAN when the remote user's PC does not have a locally attached modem.

LAN Remote Calling On-line Service Via Gateway



This diagram illustrates the use of Norton pcANYWHERE/LAN to dial out of a LAN into a host mainframe. In this case, the host might be a dial-in information service.

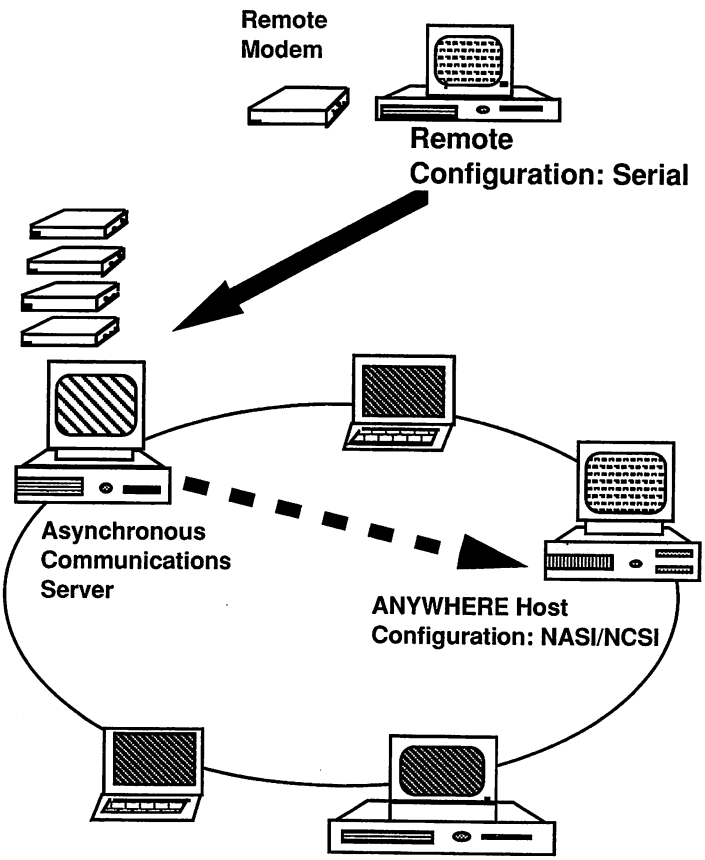
LAN Remote Calling LAN Host On Different LAN Via 2 Gateways



Shown is an advanced setup with multiple gateways.

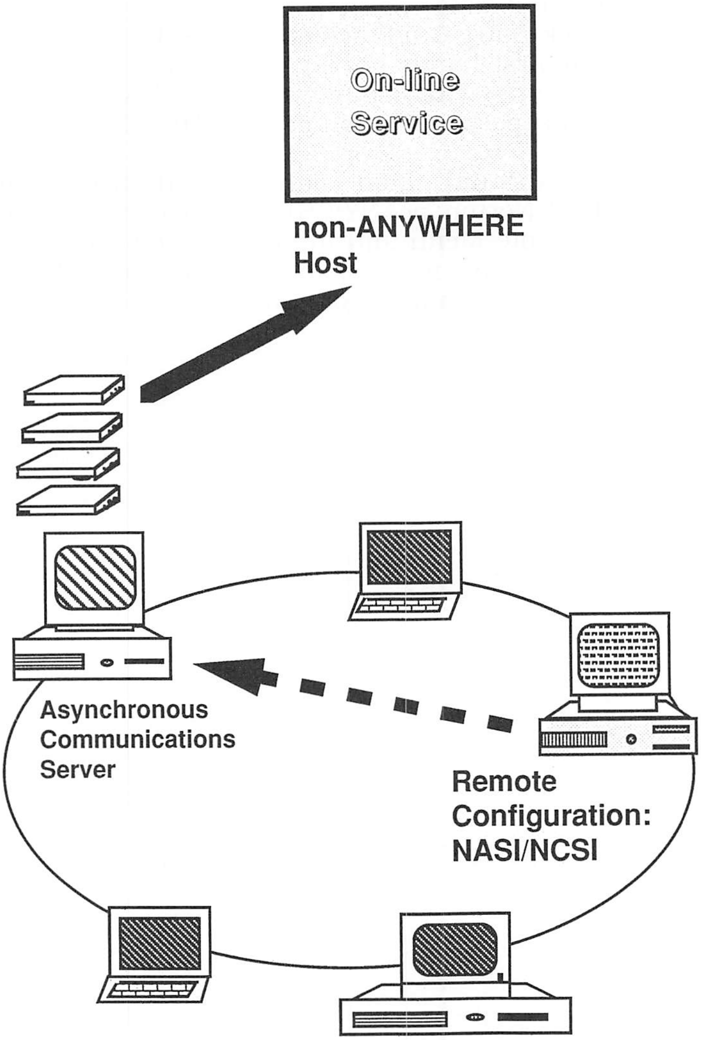
SHARING MODEMS USING AN ACS

Standalone Remote Calling LAN Host Via ACS


Remote Modem
Remote Configuration: Serial
Asynchronous Communications Server
ANYWHERE Host Configuration: NASI/NCSI

The above setup shows how to use a NASI/NCSI compatible ACS to dial into an ANYWHERE host PC. Of course the roles of the host and remote can be reversed in this scenario.

LAN Remote Calling An On-line Service Via ACS



This is another example of using Norton pcANYWHERE/LAN with an ACS for general purpose communications with a remote host.

READY FOR REMOTE COMPUTING

Now that you are familiar with the terms and concepts of remote computing, it is time to experience a remote computing session. The Quick-Start Guide which follows in Chapter 3 will give you your first hands-on experience. The Reference Manual which begins with Chapter 4 provides in-depth explanations of all aspects of Norton pcANYWHERE.

The Reference Manual also contains item-by-item explanations of all Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote Menu and input forms choices. This item-by-item explanation follows, in general, the order of each item's appearance on a menu or a form.

3

Quick-Start Guide

This Quick-Start Guide is intended primarily for experienced users who want to get up and running with Norton pcANYWHERE/Host and/or Norton pcANYWHERE/Remote immediately. Less experienced users may want to read Chapter 2, Norton pcANYWHERE Concepts before using these instructions to get their first hands-on experience with Norton pcANYWHERE.

If you have not yet installed Norton pcANYWHERE, refer to the Installation portion of Chapter 1. If you need general information on the types of screens and typical keystrokes for operating Norton pcANYWHERE, refer to the short guide on these issues following this Quick-Start.

Quick-Start Guide

Norton pcANYWHERE is a very flexible product that is designed to work well in a wide range of hardware environments. This quick-start guide addresses the needs of most users. If you require extra help with a menu option, the Reference Manual and Help Screens contain detailed information on every aspect of Norton pcANYWHERE.

STARTING NORTON PCANYWHERE

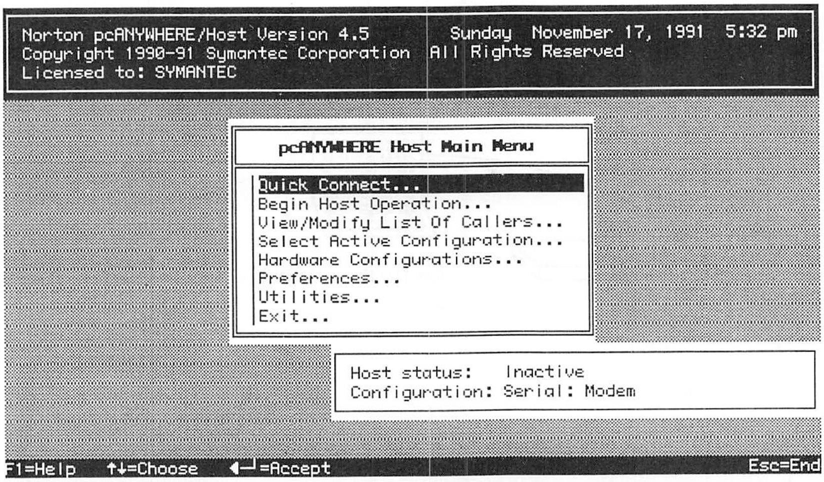
Before you start Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote, it must have been installed. In order to run them from any directory on your hard disk, the AWHOST or AWREMOTE program must be in the your search path. Consult your DOS manual for more information about search paths.

1. From the subdirectory where you installed the Norton pcANYWHERE/Remote and/or Host programs, type `AWREMOTE` or `AWHOST` and press ↵.

Note

You will consistently "Press ↵" throughout program operations to tell Norton pcANYWHERE to "enter" the characters typed or "select" the highlighted item. "Press ↵" will not appear repeatedly in these instructions.

2. The Main Menus for Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote are shown below. Determine whether you are going to be the *host* or the *remote* in this quick-start session. Then follow the instructions for host or remote given here. The actions of the host and remote players are somewhat interdependent. As such, you will find the quick-start steps for the host and remote interlaced to reflect who does what at which point in the process.

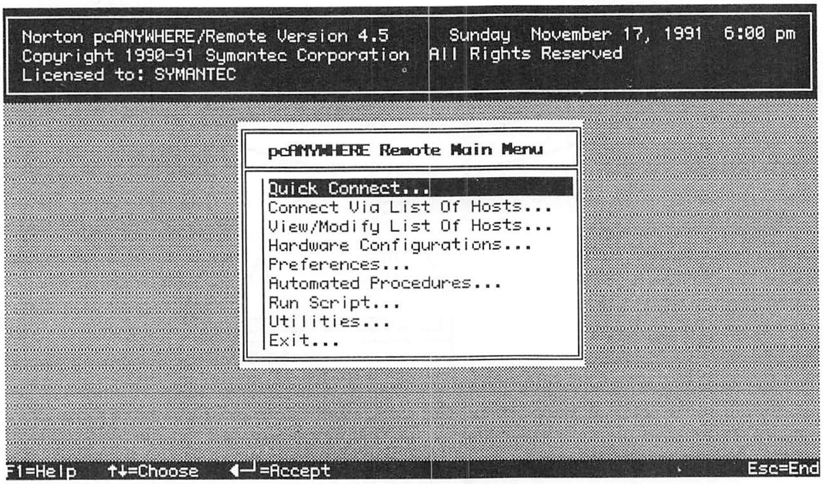


```
Norton pcANYWHERE/Host Version 4.5       Sunday  November 17, 1991  5:32 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC
```

pcANYWHERE Host Main Menu
Quick Connect...
Begin Host Operation...
View/Modify List Of Callers...
Select Active Configuration...
Hardware Configurations...
Preferences...
Utilities...
Exit...

```
Host status:    Inactive
Configuration: Serial: Modem
```

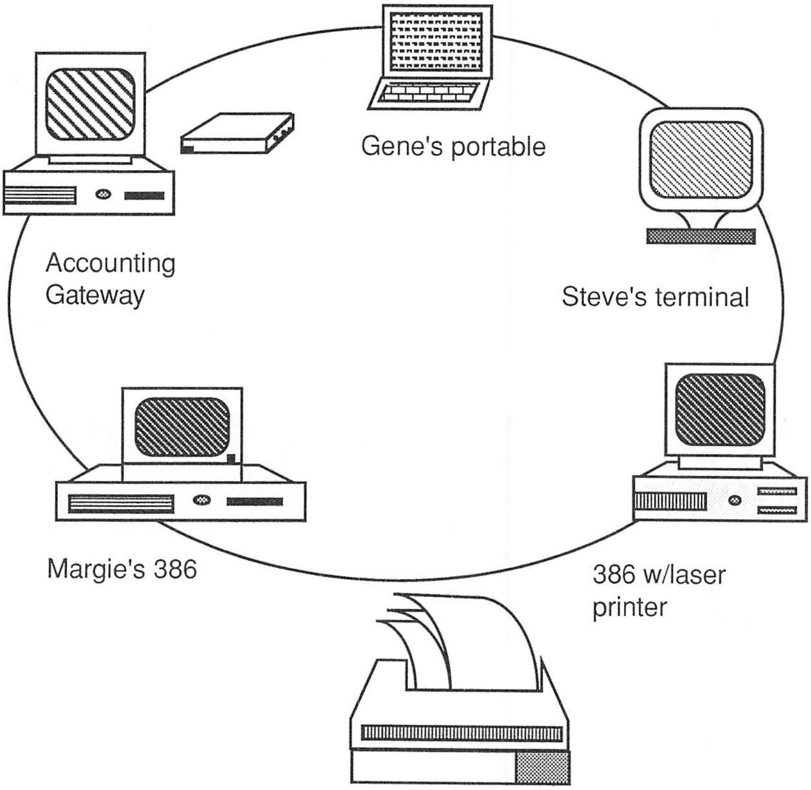
F1=Help
↑↓=Choose
◄┘=Accept
Esc=End



```
Norton pcANYWHERE/Remote Version 4.5     Sunday  November 17, 1991  6:00 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC
```

NAMING YOUR COMPUTER

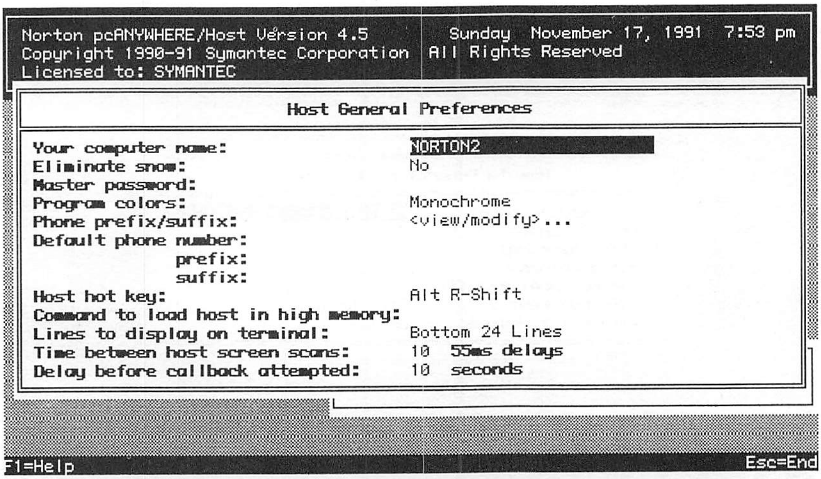
Every user must give their computer a name. The name should be one you can remember easily and share with others. Norton pcANYWHERE uses computer names to identify the systems. If you are going to use Norton pcANYWHERE to communicate with a host or remote on a LAN (running Norton pcANYWHERE/LAN), this is particularly important.



Choose any name that will readily identify your computer.

1. From the Norton pcANYWHERE/Host Main Menu, select *Preferences* and then select *General....*

   This brings up the General Preferences Menu.



```
Norton pcANYWHERE/Host Version 4.5          Sunday  November 17, 1991  7:53 pm
Copyright 1990-91 Symantec Corporation     All Rights Reserved
Licensed to: SYMANTEC

                          Host General Preferences

Your computer name:                        NORTON2
Eliminate snow:                            No
Master password:
Program colors:                            Monochrome
Phone prefix/suffix:                       <view/modify>...
Default phone number:
            prefix:
            suffix:
Host hot key:                              Alt R-Shift
Command to load host in high memory:
Lines to display on terminal:              Bottom 24 Lines
Time between host screen scans:            10  55ms delays
Delay before callback attempted:           10  seconds

F1=Help                                                                 Esc=End
```

Norton pcANYWHERE/Host General Preferences Menu

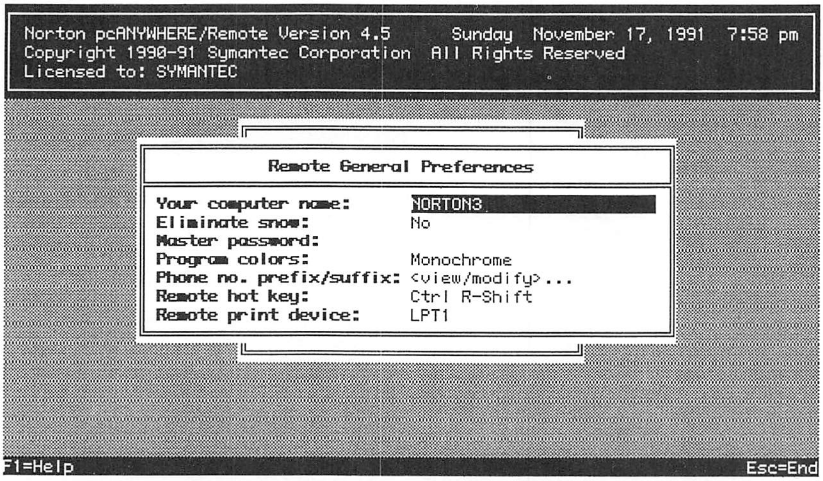
2. Highlight *Your computer name* and type in a name for your computer.

3. Press ↵ to tell Norton pcANYWHERE to accept the name you entered.

   Note the on-screen keystroke status line that appears on the very bottom of your screen. The content of this status line changes, depending on what keystrokes are available at any given time.

   From this on-screen keystroke status line, you'll see that **Esc=End**. Pressing the **<Esc>** key ends a sequence of instructions in Norton pcANYWHERE and moves you back to the beginning menu in the sequence.

4. From the Norton pcANYWHERE/Remote Main Menu, you select *Preferences* menu and then *General...* to name your computer. The *General Preferences* menu for Norton pcANYWHERE/Remote is different from the Norton pcANYWHERE/Host *General Preferences*:



```
Norton pcANYWHERE/Remote Version 4.5      Sunday  November 17, 1991   7:58 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

                    Remote General Preferences

Your computer name:        NORTON3
Eliminate snow:            No
Master password:
Program colors:            Monochrome
Phone no. prefix/suffix:   <view/modify>...
Remote hot key:            Ctrl R-Shift
Remote print device:       LPT1
```

Norton pcANYWHERE/Remote General Preferences Menu

5. Highlight *Your computer name* and type in a name for your computer.
6. Press ↵ to tell Norton pcANYWHERE to accept the name you entered.

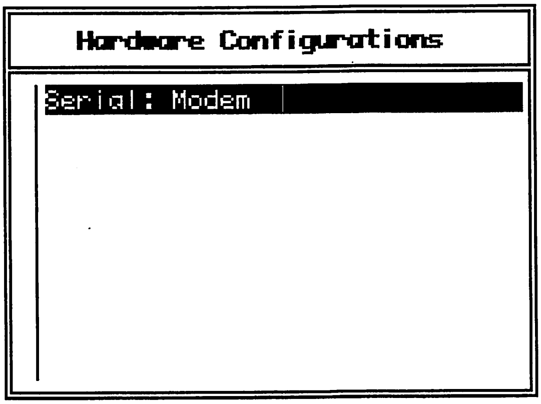
HARDWARE CONFIGURATIONS

Your configuration describes the hardware set-up you will use to reach the host or remote user. Norton pcANYWHERE comes with one default configuration: *Default: Hayes compatible.* The menu item *Hardware Configurations* is identical in both Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote.

Note

Both host and remote users must complete a *Hardware Configurations* sequence to define their respective system configurations.

1. From a Norton pcANYWHERE Main Menu, select *Hardware Configurations* to view the list containing the default configuration and any custom configurations that may be in place.



Hardware Configurations

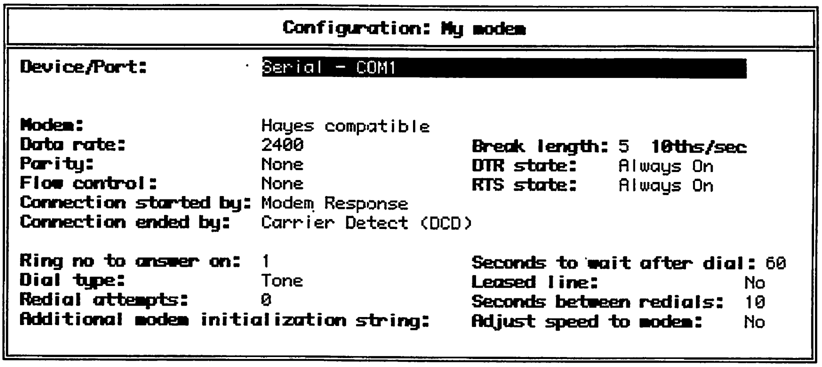
Serial: Modem

Default Configuration

The default *Serial: Modem* will function at 1200 baud with *Data rate* set to *Max*. If your modem is Hayes compatible and capable of a baud rate higher than 1200, use the *Data rate* field in the *Configurations form* to select the actual baud rate of your modem.

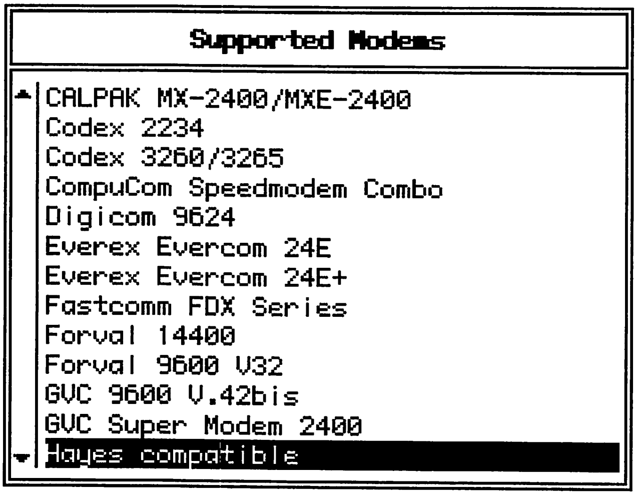
It is possible that you may have to change the modem selection. To view a list of supported modems, select *Modem* from the Configuration Form, and then choose *Select From Modem List.*

3. To fill out the *Configuration Form* for a new entry, press the **<Ins>** key. Norton pcANYWHERE asks you to name the new configuration you are about to define. Give it a name to distinguish it from the default configuration already on the *Configurations* list. The following form appears with the name you have selected for the new entry at the top:



```
                          Configuration: My modem
Device/Port:              Serial - COM1

Modem:                    Hayes compatible
Data rate:                2400                Break length: 5  10ths/sec
Parity:                   None                DTR state:    Always On
Flow control:             None                RTS state:    Always On
Connection started by:    Modem Response
Connection ended by:      Carrier Detect (DCD)

Ring no to answer on:     1                   Seconds to wait after dial: 60
Dial type:                Tone                Leased line:                No
Redial attempts:          0                   Seconds between redials:    10
Additional modem initialization string:      Adjust speed to modem:      No
```

4. Highlight the field called *Modem* and press ↵. Choose *Select From Modem List* to view a list of specific modems.



Supported Modems

- CALPAK MX-2400/MXE-2400
- Codex 2234
- Codex 3260/3265
- CompuCom Speedmodem Combo
- Digicom 9624
- Everex Evercom 24E
- Everex Evercom 24E+
- Fastcomm FDX Series
- Forval 14400
- Forval 9600 V32
- GVC 9600 V.42bis
- GVC Super Modem 2400
- Hayes compatible

Choose your modem, internal or standalone, from the list. If your modem is not listed on the screen, select the modem closest to the one you have.

When you select a different modem name, Norton pcANYWHERE automatically adjusts other fields on the form to reflect the settings required by the named modem. It is usually best to leave the selected settings as defined by Norton pcANYWHERE.

5. The **<Esc>** key is always used to "End" a selection sequence, or "Cancel" it. After you finish your configuration choices, use the **<Esc>** key to "End" and return you to the Norton pcANYWHERE Main Menu. The action/status line on the bottom of the screen always identifies available actions and the necessary key sequence to accomplish them.

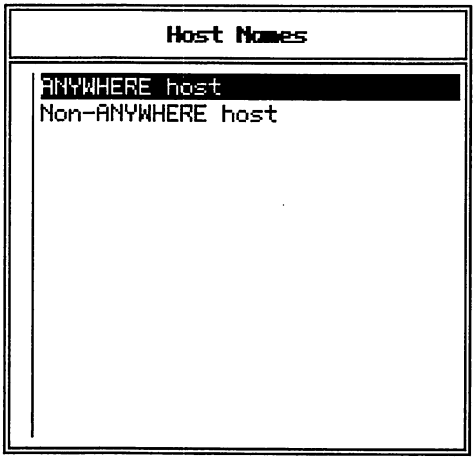
HOST AND REMOTE PREPARATIONS

At this point, host and remote users need to make a few preparations to automate the connection process and set up some parameters for how the two computers will work together.

On the Remote Side

The remote user stores information about the host system using *Connect Via List of Hosts*. Choosing *Connect Via List of Hosts* brings up a user's own list of hosts to choose from.

1. From the Norton pcANYWHERE/Remote Main Menu, select *Connect Via List of Hosts* If this is the first use of Norton pcANYWHERE/Remote, the host list will be blank.

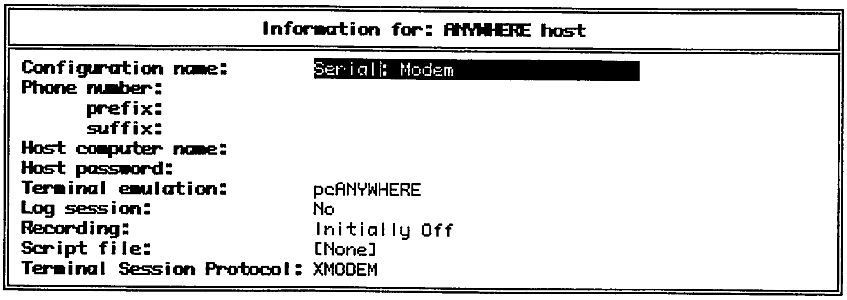


Host Names

ANYWHERE host
Non-ANYWHERE host

2. To set up a new host entry, press the **<Ins>** key to give the new host a name. This name should be a name that means something to you. It can be different than the host's actual computer name. It becomes a part of your personal list of hosts.

3. The screen that follows your naming of the host is the host information form. It contains the details associated with the host.



Information for: ANYWHERE host

Configuration name: Serial: Modem
Phone number:
prefix:
suffix:
Host computer name:
Host password:
Terminal emulation: pcANYWHERE
Log session: No
Recording: Initially Off
Script file: [None]
Terminal Session Protocol: XMODEM

- **Configuration name.** If this field is already filled in with the configuration you need to access this host system, leave it as is. Press ↵ to view a list of the stored configurations. Select the configuration you need.

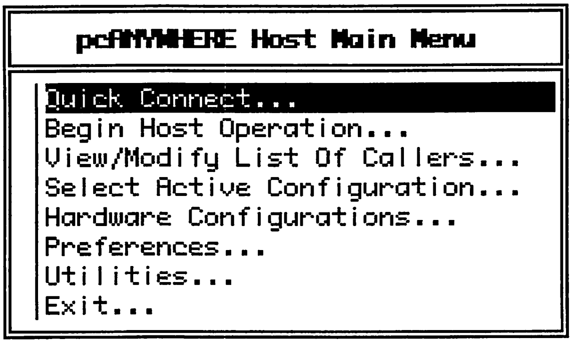
- **Phone number.** If you are using a modem, type in the phone number of the host system. You may use hyphens(-) and parentheses ( ) .
- **Host computer name.** Type in the name of the host computer you want to access. This must be the name the host user entered when he or she named their system. Typing in a host name is optional.
- **Host password.** Type in the password that you and the host user have agreed upon. If you do not enter a password in this field, Norton pcANYWHERE/Remote requests the password at connect time.
- **Terminal emulation.** To connect to an ANYWHERE host, retain the default entry of *Norton pcANYWHERE.* Select *VT-220* in place of *Norton pcANYWHERE* if you are accessing a non-ANYWHERE host.
- For now, ignore the other fields:.

4. When you are finished, use the **<Esc>** key to return to the Remote Main Menu.

On the Host Side

In order to provide secure access to the host, you need to specify a password for the remote user. There are also other parameters you can set from the Host Main Menu, but right now only the password is important. Consult Chapter 5, Norton pcANYWHERE/Host, for more information.

1. From the Norton pcANYWHERE/Host Main Menu, choose *View/Modify List of Callers.*

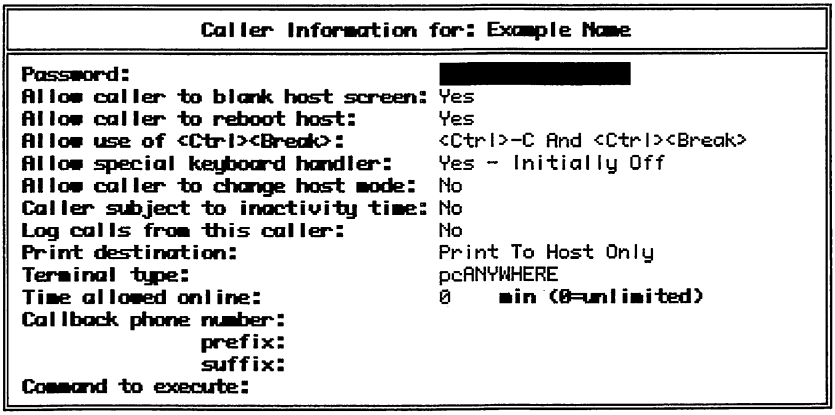

pcANYWHERE Host Main Menu
Quick Connect...
Begin Host Operation...
View/Modify List Of Callers...
Select Active Configuration...
Hardware Configurations...
Preferences...
Utilities...
Exit...

2. Norton pcANYWHERE/Host displays a blank "Caller Names" box where the caller names will be listed.

3. Press the **<Ins>** key to add a new caller.

4. Again, as with the list of hosts, the name you give to this caller is one of your own choosing. It should be meaningful and useful to you to identify a remote site that will call you. It does not have to be the same as the computer name at the caller site.

   As with the host name, assigning a caller name reveals the form behind it where all of the details about the caller site are stored. When you press ↵, Norton pcANYWHERE/Host displays this form with the *Password* field highlighted.



```
                  Caller Information for: Example Name

Password:
Allow caller to blank host screen: Yes
Allow caller to reboot host:       Yes
Allow use of <Ctrl><Break>:        <Ctrl>-C And <Ctrl><Break>
Allow special keyboard handler:    Yes - Initially Off
Allow caller to change host mode:  No
Caller subject to inactivity time: No
Log calls from this caller:        No
Print destination:                 Print To Host Only
Terminal type:                     pcANYWHERE
Time allowed online:               0    min (0=unlimited)
Callback phone number:
                 prefix:
                 suffix:
Command to execute:
```

5. Type in the password that the remote user will need to access your system. Each caller entry must have a unique password.

6. As you press the **<Esc>** key to leave this screen, the caller entry is saved under the name you specified. Norton pcANYWHERE/Host uses the passwords attached to these caller names to screen remote users.

7. Since this is likely your first use of the Caller List, as you use the **<Esc>** key to return to the Main Menu, you are advised :

   ```
   The Use Caller Information List preference
   option is currently set to NO. You may set
   it to YES now in order to use the caller
   entries.
   ```

   Norton pcANYWHERE/Host then presents the menu option: *Use Caller Information List: Yes/No.*

   When Norton pcANYWHERE/Host is shipped to you, *Use Caller Information List* is set to *No* because there are no caller entries shipped with the product. Now that you have listed a caller, you should set this to *Yes*. If you leave it set to *No*, Norton pcANYWHERE/Host will use a default caller entry to facilitate a remote computing session. That default entry will not appear on your list.

8. With "Use Caller Information List" set to *Yes*, when a remote caller enters the password recorded in a caller information form, all of the parameters on that caller information form will be used for the session.

BEGINNING THE SESSION

Now that all the preparations have been made, beginning the session is easy.

On the Host side

Follow these steps to wait for a connection. The remote user will initiate the session. If the status box displays the configuration you need as the current one, you can skip steps 1 and 2.

1. From the Host Main Menu, choose *Select Active Configuration* to view a list of the configurations stored for your use.
2. Select the name of the configuration the remote caller needs to reach you as the host. Norton pcANYWHERE/Host displays the configuration form. Use the **<Esc>** key to return to the Host Main Menu.
3. Select *Begin Host Operation*. Norton pcANYWHERE/Host displays a list of options with *Wait For A Connection* highlighted.
4. Press ↲ to begin the session.

Norton pcANYWHERE/Host displays status messages as the remote user makes the connection. When the connection is made, the status message disappears, and your session has begun. To look at a menu of host options while online, press the host hot key, **<Alt-Right-Shift>** (hold down the Alt key while pressing the right-hand shift key).

On the Remote Side

Follow these steps to make a connection with the host system.

1. From the Remote Main Menu, select *Connect To Host.* Norton pcANYWHERE/Remote displays the list of host names.

2. Highlight the name of the host you wish to access and press **<F2>** to call the host system.

3. If Norton pcANYWHERE/Remote prompts you for a password, type in the correct password. If you are not prompted, either the host does not require a password or Norton pcANYWHERE/Remote has given it automatically to the host machine based on the password information stored in the host information record which matches the name of the host you selected.

Once the password is received by the host machine, your session begins. Your screen now reflects the host screen. To end the session or perform other Norton pcANYWHERE/Remote activities, press the remote hot key, **<Ctrl-Right-Shift>** (hold down the **<Ctrl>** key while pressing the right-hand shift key).

Screens & Keystrokes

This section is designed to help you use Norton pcANYWHERE's standard keystrokes, and to take advantage of its screen features. We'll look at the different types of Norton pcANYWHERE screens, and point out the various elements. For each screen, we'll list the keys that perform various functions within those screens.

HELP

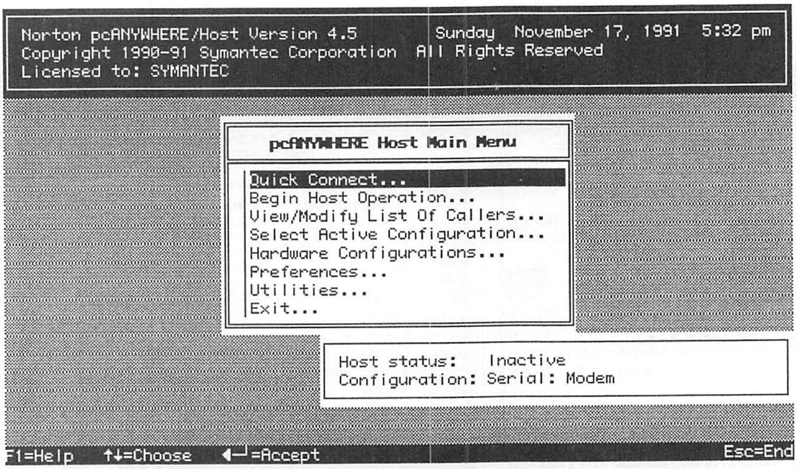
If help is available for the current activity, *F1=Help* appears on the help line at the bottom of the screen.

Getting help	
View help screen(s) for current activity	F1
Next screen	PgDn
Previous screen	PgUp
Leave help	Esc

MENUS

The keys that you use to move around in Norton pcANYWHERE's menus apply to Norton pcANYWHERE's lists and forms as well.

Main Menus



Norton pcANYWHERE/Host Version 4.5 Sunday November 17, 1991 5:32 pm
Copyright 1990-91 Symantec Corporation All Rights Reserved
Licensed to: SYMANTEC

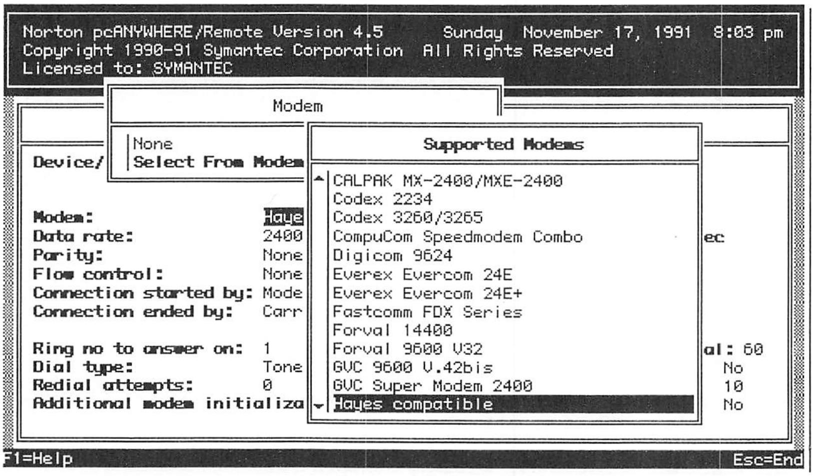
Host status: Inactive
Configuration: Serial: Modem

pcANYWHERE Host Main Menu
Quick Connect...
Begin Host Operation...
View/Modify List Of Callers...
Select Active Configuration...
Hardware Configurations...
Preferences...
Utilities...
Exit...
F1=Help
↑↓=Choose
◄┘=Accept
Esc=End

Navigating a menu or submenu	
Move highlight up/down one line	⇑⇓
First option	Home
Last option	End
Highlight option	Type the first significant letter(s), e.g. type `u` to highlight Utilities.
Previous menu	Esc
Quit pcANYWHERE	Esc until prompted, then type `y`
Execute selected option	↵

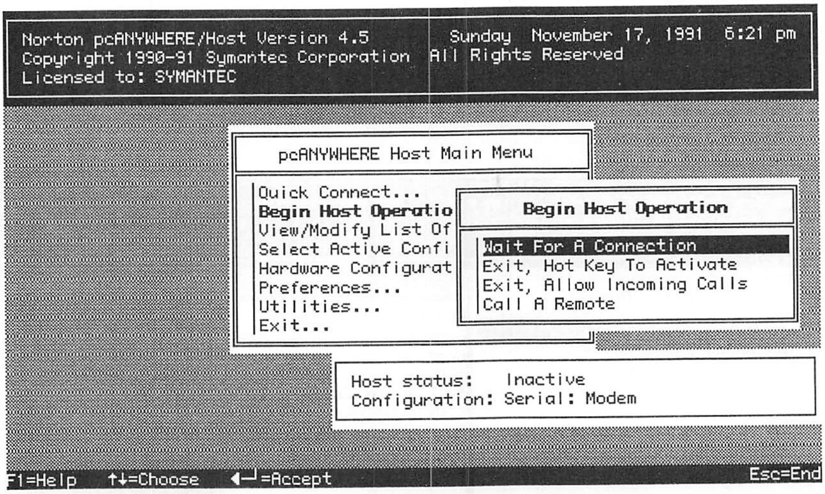
Long Menus

Additional cursor keys are used to access long lists or menus. The example below shows the modem list.



```
Norton pcANYWHERE/Remote Version 4.5      Sunday  November 17, 1991  8:03 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC
                               Modem

            |None                       Supported Modems
Device/     |Select From Modem
                             ▲|CALPAK MX-2400/MXE-2400
                              |Codex 2234
Modem:                   Haye |Codex 3260/3265
Data rate:               2400 |CompuCom Speedmodem Combo               ec
Parity:                  None |Digicom 9624
Flow control:            None |Everex Evercom 24E
Connection started by:   Mode |Everex Evercom 24E+
Connection ended by:     Carr |Fastcomm FDX Series
                              |Forval 14400
Ring no to answer on:    1    |Forval 9600 V32                         al: 60
Dial type:               Tone |GVC 9600 V.42bis                          No
Redial attempts:         0    |GVC Super Modem 2400                      10
Additional modem initializa  ▼|Hayes compatible                          No
F1=Help                                                             Esc=End
```

Navigating a long menu or list	
Highlight option	Type the first significant letter(s). If more than one option begins with the same letter, type as many letters as are needed to enter a unique string. For example, to select *ATI 2400* when *AT&T 4000* is also listed, type `ati`.
Next screen of options	PgDn
Previous screen of options	PgUp



```
Norton pcANYWHERE/Host Version 4.5          Sunday November 17, 1991  6:21 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

            pcANYWHERE Host Main Menu

            Quick Connect...
            Begin Host Operatio    Begin Host Operation
            View/Modify List Of
            Select Active Confi    Wait For A Connection
            Hardware Configurat    Exit, Hot Key To Activate
            Preferences...         Exit, Allow Incoming Calls
            Utilities...           Call A Remote
            Exit...

                Host status:    Inactive
                Configuration: Serial: Modem

F1=Help  ↑↓=Choose  ◄┘=Accept                                        Esc=End
```

Information box

The top four lines of the screen list the product name, version, licensee name, and serial number.

Help line

This line provides helpful keystroke guidance.

Status box

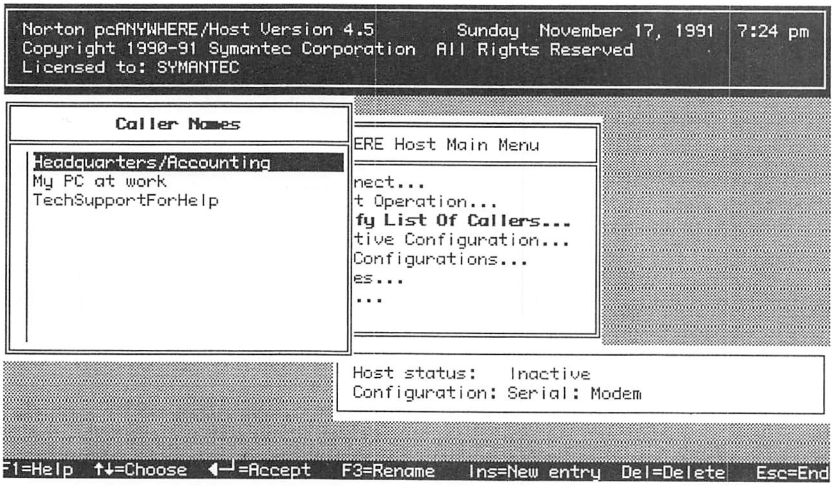
If present, this box shows the currently selected configuration(s) and informs you as to the active/inactive status of the specific activity.

USER-MODIFIABLE LISTS

You use the same methods to move around Norton pcANYWHERE's caller and host information screens as you use for movement in the menus. However, additional keys allow you to add, delete, rename, or perform other activities with the listed items.

Working with lists

The keystrokes below apply to working with hardware configurations, Norton pcANYWHERE/Host's *Caller Information List* and Norton pcANYWHERE/Remote's *Host Information List.*



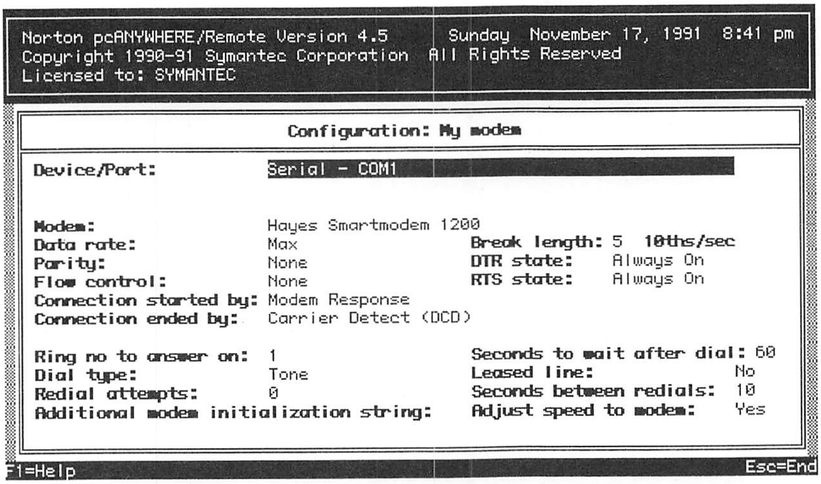
```
Norton pcANYWHERE/Host Version 4.5      Sunday  November 17, 1991   7:24 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

              Caller Names
                                    ERE Host Main Menu
 Headquarters/Accounting
 My PC at work                      nect...
 TechSupportForHelp                 t Operation...
                                    fy List Of Callers...
                                    tive Configuration...
                                    Configurations...
                                    es...
                                    ...

                                    Host status:   Inactive
                                    Configuration: Serial: Modem

F1=Help  ↑↓=Choose  ◄┘=Accept  F3=Rename  Ins=New entry  Del=Delete  Esc=End
```

Working with a user-modifiable list	
Highlight/select item	Type the first significant letter(s), e.g. type `sa` to highlight *Sam's computer.*
Highlight/select item	Cursor keys
Modify fields for selected item	↵
Delete selected item	Del
Rename selected item	F3
Add new item	Ins
Call a host	F2

Screen Forms

Norton pcANYWHERE includes screen forms with fill-in fields. These forms are used to work with configurations, preferences, caller entries, and host information entries. Some fields allow you to select an entry from a submenu. A few fields require you to type in text. Other fields just require you to select `Yes` or `No` to fill in these fields.

Movement within screen forms is similar to movement in other Norton pcANYWHERE screens, but there are a few additional points to remember.



```
Norton pcANYWHERE/Remote Version 4.5       Sunday  November 17, 1991  8:41 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

                          Configuration: My modem

Device/Port:                Serial - COM1


Modem:                      Hayes Smartmodem 1200
Data rate:                  Max                   Break length: 5  10ths/sec
Parity:                     None                  DTR state:    Always On
Flow control:               None                  RTS state:    Always On
Connection started by:      Modem Response
Connection ended by:        Carrier Detect (DCD)

Ring no to answer on:       1                     Seconds to wait after dial: 60
Dial type:                  Tone                  Leased line:                No
Redial attempts:            0                     Seconds between redials:    10
Additional modem initialization string:           Adjust speed to modem:      Yes

F1=Help                                                                  Esc=End
```

See the table on the next page for a listing of the keystrokes used to work with a form like this.

Keystrokes

Working with a form	
Highlight/select field	Cursor keys
Modify selected field	↵
Highlight/select in field submenu	Cursor keys, or type in first significant letter(s)
Fill in field with selected submenu item and highlight next field	↵
Abandon changes to type-in field	Esc
Save changes to type-in field and highlight next field	↵
Save changes to form	Esc ↵
Abandon changes to form	Esc N

Quick Connect

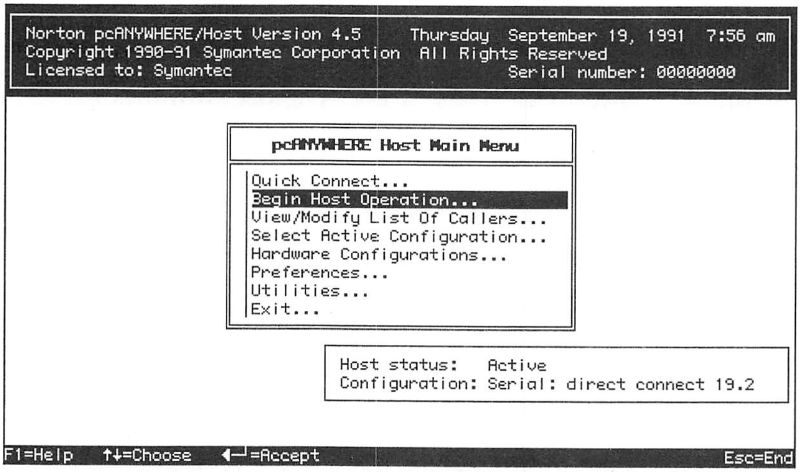
The *Quick Connect* feature enables you to quickly and easily configure your computer to become a host or a remote. *Quick Connect* is a valuable feature for the novice and experienced Norton pcANYWHERE user alike. Those unfamiliar with Norton pcANYWHERE and/or remote computing will be able to achieve a connection to a remote computer with a minimum of effort or difficulty.

SERIAL HOST

Quick Connect contains the absolute fewest parameters which you need to set up prior to beginning a connection. *Quick Connect* will also benefit the experienced users who may not need or wish to set up all of the remote preferences prior to each connection. Since it is easy to use, *Quick Connect* is also a valuable tool when you are testing new hardware configurations or when a single active password (which is contained in the *Default Caller Information* table) is acceptable.

To Begin:

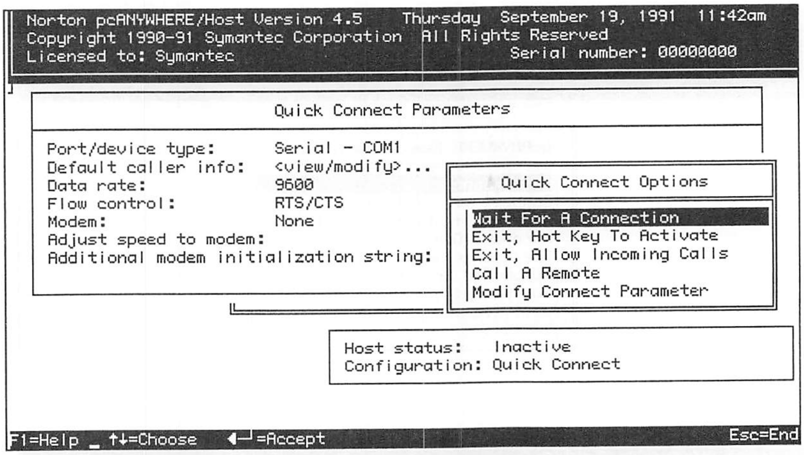
Select the *Quick Connect* option from the Host Main Menu.



```
Norton pcANYWHERE/Host Version 4.5      Thursday  September 19, 1991  7:56 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                             Serial number: 00000000

Host status:   Active
Configuration: Serial: direct connect 19.2
```

pcANYWHERE Host Main Menu
Quick Connect...
Begin Host Operation...
View/Modify List Of Callers...
Select Active Configuration...
Hardware Configurations...
Preferences...
Utilities...
Exit...
F1=Help ↑↓=Choose ◄┘=Accept Esc=End

Now that you have reached the *Quick Connect Options* menu, you can either begin the connection process or modify the few *Quick Connect Parameters* which are contained in the background window. To start the connection, simply select the desired connection method from the *Quick Connect Options* menu.



```
Norton pcANYWHERE/Host Version 4.5    Thursday  September 19, 1991  11:42am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                            Serial number: 00000000

                         Quick Connect Parameters

Port/device type:          Serial - COM1
Default caller info:       <view/modify>...
Data rate:                 9600
Flow control:              RTS/CTS
Modem:                     None
Adjust speed to modem:
Additional modem initialization string:

                                Host status:    Inactive
                                Configuration: Quick Connect
```

Modifying Parameters

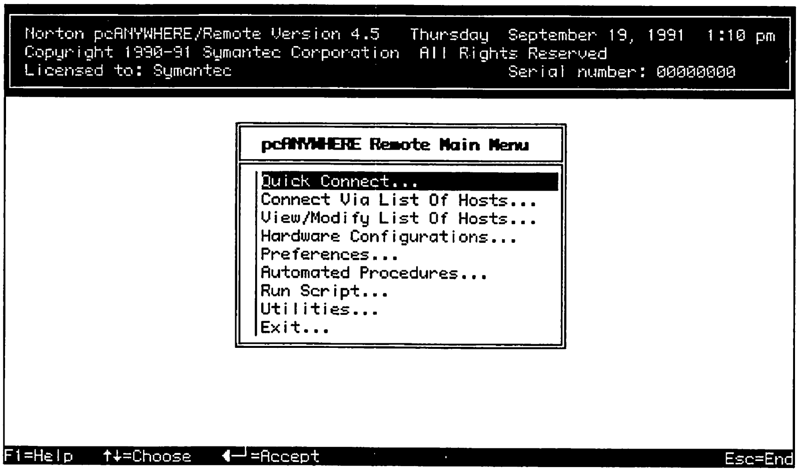
Once you select the *Modify Connect Parameters* option, the option menu is closed and you can now modify the *Quick Connect Parameters*. If you choose a modem, Norton pcANYWHERE will suggest the optimum values for several of the *Quick Connect Parameters* which are related to modem operation (e.g, Data Rate, Adjustment of Modem Speed). At this point, you can either have the program automatically modify these parameters or you can select *No* and have the parameters remain as before. Once you have completed modifying the *Quick Connect Parameters*, simply press <**Esc**> and you will return to the *Quick Connect Options* menu. From here, you can begin the connection process.

SERIAL REMOTE

The *Quick Connect* feature enables you to quickly and easily configure your computer to become a remote.

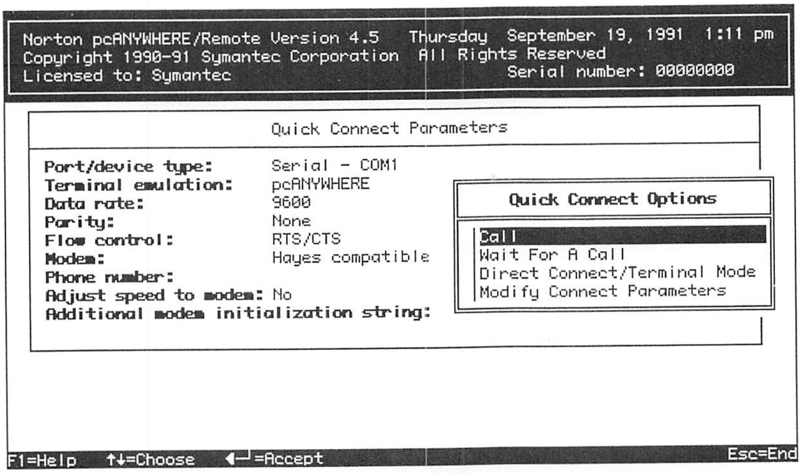
To Begin:

Select the *Quick Connect* option from the Main Menu.



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  1:10 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                             Serial number: 00000000
```

Now that you have reached the *Quick Connect Options* menu, you can either begin the connection process or modify the few *Quick Connect Parameters* which are contained in the background window. To start the connection, simply select the desired connection method from the *Quick Connect Options* menu.



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  1:11 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                             Serial number: 00000000

                        Quick Connect Parameters

 Port/device type:          Serial - COM1
 Terminal emulation:        pcANYWHERE
 Data rate:                 9600
 Parity:                    None
 Flow control:              RTS/CTS
 Modem:                     Hayes compatible
 Phone number:
 Adjust speed to modem: No
 Additional modem initialization string:

                                     Quick Connect Options
                                    Call
                                    Wait For A Call
                                    Direct Connect/Terminal Mode
                                    Modify Connect Parameters

F1=Help   ↑↓=Choose   ◄┘=Accept                                      Esc=End
```

NOTE
The connection options which are available to you depend on whether or not a modem has been chosen. When the modem is set to NONE, Norton pcANYWHERE can wait for a connection only by checking the Data Carrier-Detect (DCD) signal. If a modem is selected, Norton pcANYWHERE can either make a call or wait for a call by programming the modem. The *Direct Connect/Terminal Mode* is supported in either case.

Modifying Parameters

Once you select the *Modify Connect Parameters* option, the option menu is closed and you can now modify the *Quick Connect Parameters*. If you choose a modem, Norton pcANYWHERE will suggest the optimum values for several of the *Quick Connect Parameters* which are related to modem operation (e.g, Data Rate, Adjustment of Modem Speed). At this point, you can either have the program automatically modify these parameters or you can select *No* and have the parameters remain as before. Once you have completed modifying the *Quick Connect Parameters*, simply press **<Esc>** and you will return to the *Quick Connect Options* menu. From here, you can begin the connection process.

4

Hardware Configurations

This section is devoted to the Norton pcANYWHERE/Host and pcANYWHERE/Remote Main Menu item called *Hardware Configurations*, where you set up parameters for communicating via different communications ports on your system.

Using *Hardware Configurations*, you can set up configurations for modem and direct connections. For telephone line connections, you can also specify dialing procedures. To work with hardware configurations, you must know the master password, described in the *Preferences* sections of Chapter 5 (Norton pcANYWHERE/Host) and Chapter 6 (Norton pcANYWHERE/Remote). In addition, before you work with Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote, you may want to use the *Preferences* option to name your computer and use *Program colors* to set up the way your screen display looks.

When To Use Hardware Configurations

You should use the *Hardware Configurations* options when you first start out with Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote. Although you can work with configurations from other parts of Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote, it is easiest to set things up in the beginning.

To work with hardware configurations, select *Hardware Configurations* from the Main Menu of either Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote.

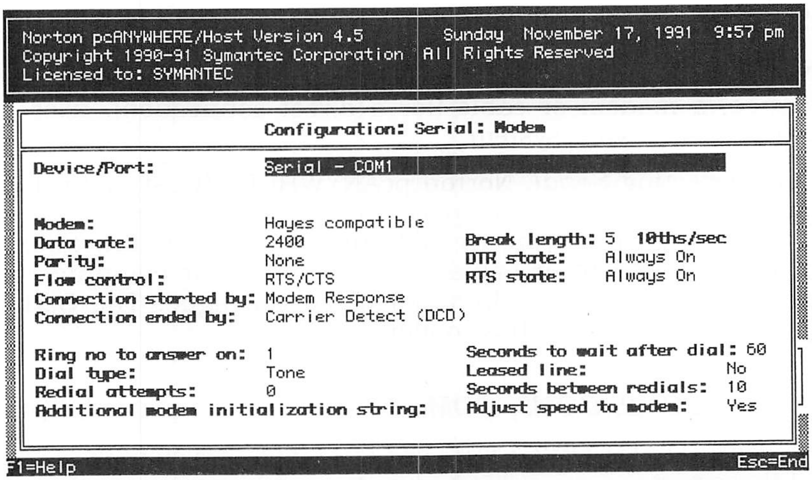
- To add a configuration, use the **<Ins>** key and type in an identifying name. The name may contain up to 30 characters.
- To rename a configuration, use the **<F3>** key and type the new name in over the old name.
- To delete a configuration, simply select its name and press the **<Del>** key.

Note:

Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote come with one default configuration: "**Serial: Modem.**" We recommend that you save this default. If you begin from the configurations form filled in with the default setting, you can modify the information to accommodate your special requirements and then simply give the modified configuration file a new name.

Working With Configurations

Behind each configuration named on the *Configurations* list is a fill-in-the-blanks form which defines the parameters for the named configuration. The form used for such serial connections is pictured below.



```
Norton pcANYWHERE/Host Version 4.5       Sunday  November 17, 1991  9:57 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

                        Configuration: Serial: Modem

Device/Port:                Serial - COM1

Modem:                      Hayes compatible
Data rate:                  2400              Break length: 5  10ths/sec
Parity:                     None              DTR state:    Always On
Flow control:               RTS/CTS           RTS state:    Always On
Connection started by:      Modem Response
Connection ended by:        Carrier Detect (DCD)

Ring no to answer on:       1                 Seconds to wait after dial: 60
Dial type:                  Tone              Leased line:                No
Redial attempts:            0                 Seconds between redials:    10
Additional modem initialization string:       Adjust speed to modem:      Yes
F1=Help                                                              Esc=End
```

Serial Configuration Form

All information necessary to define the configuration is entered by filling in the blanks or answering questions pertaining to each of the fields. Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote menus lead you through all of the decisions you must make and note the information you must supply.

Note
Some or all of the items below are listed on the configuration form. Different fields appear in different situations, so don't worry if they are not all listed on your screen.

DEVICE/PORT

Default: Serial - COM1

This field allows you to select a type of device for communications, as well as the port used by that device. When you press ↵ to work with this field, Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote presents the following Comm Device menu:

Serial

When you choose a serial device, you are specifying that your device, a modem or cable (for a direct connection), uses a serial port on your system.

After selecting *Serial*, Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote displays the Serial ports menu for you to choose from. If you are not sure which communications port your modem or cable uses, consult your computer or modem manual, or a knowledgeable colleague. The Serial ports menu includes these options:

COM1, COM2, COM3, COM4

Choose *COM1*, *COM2*, *COM3* or *COM4* if your system uses one of these ports.

COM3 for PS/2, COM4 for PS/2

Choose one of these ports if you have an IBM PS/2 that uses COM3 or COM4.

Custom

Advanced Feature. Use this option to define an additional communications port for an add-on internal modem board or other serial board. The board must use the same communications chip that IBM's COM1 uses. Look in the manual to determine its base port address, in hexadecimal code. Type that number into the *Base port address* field. Check the manual again for the IRQ (interrupt request) number of your modem. It must be a number from 0 to 7. IRQ4 and IRQ3 are reserved for COM1 and COM2, respectively. Type the value into the *Interrupt request* field.

Note

Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote require that the serial port supports one of the IRQ values. No two add-on boards can use the same IRQ value.

Int14

Advanced feature

Int14 stands for "Interrupt 14" and indicates a special interrupt method of communicating with a communications port via BIOS calls. This method slows down communications, but is used with special interrupt device driver software. Select this option if you are using a third-party communications driver and its instructions stipulate interrupt 14 BIOS calls. If you select this option, you are also prompted to choose one of sixteen communications ports (COM1, COM2, COM3, and so on).

MODEM

Default: Hayes compatible

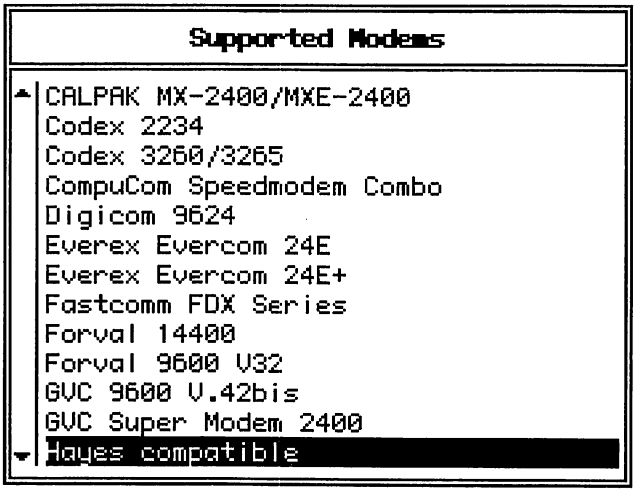
This field allows you to choose a modem, if you are using one, or to specify a direct connection.

None

Select this option if you are connecting directly to another computer via a cable. If you choose *None*, the configuration fields relating to phone communications disappear from the screen. The remaining fields are automatically filled in for you by Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote. In most cases, no further changes to this screen are required. However, you will probably want to adjust the *Data rate* field, for faster communications.

Select From Modem List

Choose this menu item to select your modem, internal or standalone, from the list.

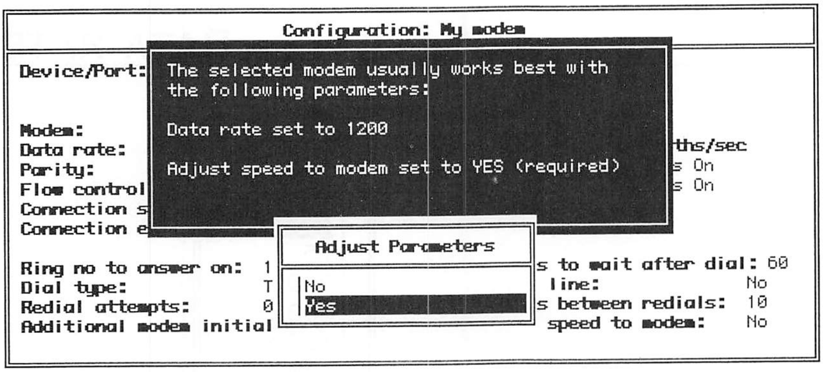


The modems listed extend beyond what is pictured in the box above. Scroll down to see the rest of the list. If your modem is not listed, select the modem closest to the one you have. Then fill in the other fields based on the recommendations in your modem manual.

Note:

If your modem is not on the list, but is "Hayes compatible," select the Hayes model most similar to your modem. If this doesn't work, use the "Hayes compatible" selection. "Hayes compatible" should only be used as a last resort.

Some modem selections will cause Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote to prompt, *The selected modem usually works best with the following parameters:*, followed by settings for one or more fields on this screen. You are then given the option *Adjust Parameters: No/Yes*, with *Yes* highlighted. These recommended settings should normally be used.



```
                    Configuration: My modem

Device/Port:  The selected modem usually works best with
              the following parameters:

Modem:        Data rate set to 1200
Data rate:                                                  ths/sec
Parity:       Adjust speed to modem set to YES (required)   s On
Flow control                                                s On
Connection s
Connection e
                       Adjust Parameters
Ring no to answer on:  1                 s to wait after dial: 60
Dial type:             T  No               line:               No
Redial attempts:       0  Yes            s between redials:    10
Additional modem initial                   speed to modem:     No
```

Recommended Settings for Specific Modems

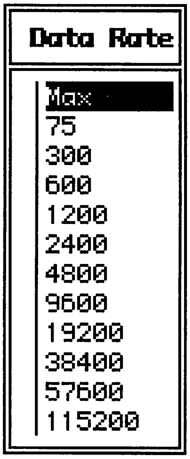
Unless you have opted to fill in certain fields yourself, Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote automatically sets up the rest of the configuration fields for you. However, you may modify these fields according to your own preferences or the directions in your modem manual.

If you select *Manual modem,* you should fill in the other fields on the form yourself, according to your modem manual instructions. In this case, Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote will not use the phone number entered in the host information entry. Instead, you must enter the modem initialization commands, in the *Additional modem initialization string field.* You should not use *Modem response* in the *Connection started by* field. Check your manual for the correct setting; most modems use *Carrier detect (DCD).* Set the *Data rate* field according to your manual's instructions.

Note

Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote will not automatically send a phone number when set to use a "Manual modem".

DATA RATE



Data Rate

Max
75
300
600
1200
2400
4800
9600
19200
38400
57600
115200

Default: Max

This setting tells Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote the speed at which your communications will take place, sometimes called the baud rate. If you are using a direct connection, the maximum speed is determined by the speed of your computer. If you are using a modem, the modem determines the speed at which you can communicate. In most cases, you do not need to specify a data rate for modem connections—you just choose *Max*. (When using the *Manual modem* selection you must set the data rate to a specific value.)

Some modems, however, allow your computer to communicate with the modem at a higher rate than the modem is communicating over the phone line; these are modems that support data compression. If your modem manual indicates that your modem works this way, you can enter an actual data rate, rather than using the *Max* setting.

Note

Whether you are communicating via modem or cable, both the host and remote configurations must use the same speed. So, in the case of a direct connection, both configurations must use the speed of the slowest system. If you are using modems, set both data rates to the speed of the slowest modem. Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote do this work for you when both host and remote use the *Max* option.

Max

This setting is for modem communications. If you use this setting, Norton pcANYWHERE uses the maximum speed allowed by the modem. This setting should be used in almost all cases– unless you have selected *Manual modem*. With this setting, Norton pcANYWHERE will always adjust the data rate after a connection is made unless *Adjust speed to modem* is set to *No*.

75, 300, 600, 1200, 2400

Use one of these speeds if it is the maximum that your equipment supports. 1200 baud is a common modem speed; 300 baud is generally the slowest modem speed. 2400 is another common speed.

4800, 9600

These speeds are used for faster modems. 9600 baud is normally a safe direct connection speed for standard IBM PCs and compatibles, which operate slower than 8 MHZ.

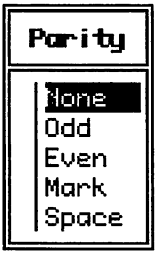
19200

Use this speed when connecting IBM PC AT computers and compatibles, which operate at 8 MHZ. Some high-speed modems support this speed too.

38400, 57600, 115200

Use these settings for direct connections using that operate at faster than 8 MHZ. Most 80386 systems can support higher speed settings.

PARITY



Default: None

Parity is a method of error checking that your modem may support. However, the most common parity setting is *None*, and this is the only setting you can use for ANYWHERE sessions. Only change the parity setting for a non-ANYWHERE session.

Note
Both systems must use the same parity setting.

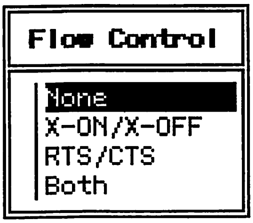
None

Use this setting for a direct connection, and for modem communications where both the host and remote systems are running Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote.

Odd, Even, Mark, Space

Use one of these settings when you are communicating with a non-ANYWHERE host system that requires a specific parity setting.

FLOW CONTROL



Default: None

This field is used to tell Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote whether to use a method of hardware or software flow control to make sure that high-speed transmissions do not exceed the ability of a receiving system to store data. To enter this setting yourself, you should consult your modem manual and find out what is recommended. Direct connections are best with flow control, and you should select *RTS/CTS* if your cable connection supports it (pins 4 and 5 on standard 25-pin serial connectors).

None

This setting is used for most modems that operate at speeds under 9600 baud.

X-ON/X-OFF

Use this method of software flow control for communicating with a non-ANYWHERE host, if the host requires it. Do not use this method for ANYWHERE sessions.

RTS/CTS

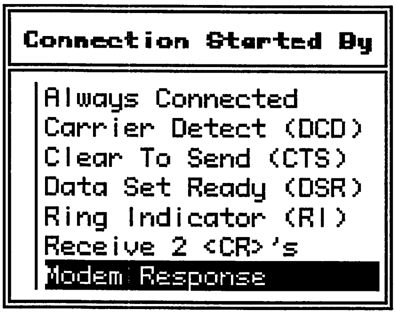
Many modems that transmit at speeds of 9600 baud and higher require and support this method of hardware flow control. If your modem or direct connection cable supports RTS/CTS, you should use it.

> **REMINDER**
> Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote set up hardware flow control automatically, if your modem supports it and you allow Norton pcANYWHERE to fill in this field for you.

Both

If your modem supports hardware flow control and your non-ANYWHERE host requires software control, choose this option.

CONNECTION STARTED BY



Default: Modem response

This field allows you to fill in the type of signal your system uses to detect a connection to another computer when you begin a session. In most cases, Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote fill in this field for you automatically.

Direct connections typically use *Carrier detect (DCD)* in both fields. If you are using a modem other than a manual modem, the *Connection started by:* field should be filled in with *Modem response;* even for manual modems, the *Connection ended by* field almost always should be filled in with *Carrier detect (DCD).*

Always Connected

Use this setting if your equipment does not support connection detection signals. If you wish to use two carriage returns received by the host to indicate a connection, *Always connected* should be used in both fields of the remote system's configuration.

Carrier Detect (DCD)

This signal is used to end most sessions where a modem is used, and is used in both connection start/end fields for a direct cable connection.

Clear to send (CTS), Data set ready (DSR), Ring indicator (RI)

Use one of these settings if you are using special hardware and its manual indicates that this is the method used by that hardware to signal an incoming call. Some PBX systems require *Ring indicator (RI)* in the *Connection started by* field and *Carrier detect (DCD)* in the *Connection ended by* field.

Receive 2 <CR>'s

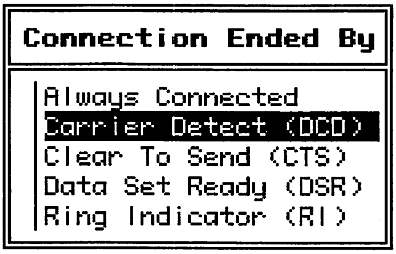
Advanced feature.

This method can be used on the host side of the operation in *Connection started by* field when there is no other connection detection system provided, but the users desire some type of signal. When the remote user keys in two carriage returns (<CR>s), a connection is assumed. The remote configuration must specify *Always connected* in both connection detection fields.

Modem Response

Use this in the *Connection started by* field when you are using a supported modem. Do not use this setting if you have selected *Manual modem.* Most modems require *Carrier detect (DCD)* in the *Connection ended by* field.

CONNECTION ENDED BY



Default: Carrier detect (DCD)

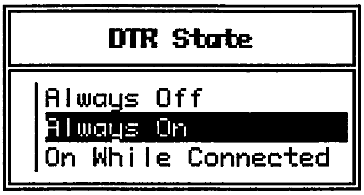
This field is similar to *Connection started by* above.

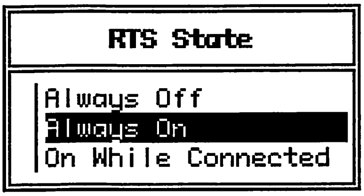
BREAK LENGTH

Default: 0.5 seconds

Only change the default in rare cases when it is necessary to allow the remote computer's terminal to accommodate special non-ANYWHERE host software applications.

DTR STATE AND RTS STATE





Default: Always on

These two fields allow you to control hardware signal settings for serial communications, and should be set by Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote for your modem, except in very rare cases where special equipment is in use. The settings are *Always on*, *Always off*, and *On while connected*.

RING NO. TO ANSWER ON

Default: 1

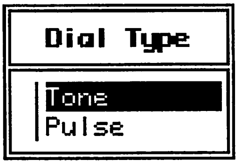
This field sets the number of rings after which your modem answers the phone when you receive a call. Normally, this field is set to 1, but you can specify more rings if you wish to allow time for a person to answer before the modem does.

SECONDS TO WAIT AFTER DIAL

Default: 60 seconds

This option is normally set to 60 seconds, as the maximum amount of time Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote will wait for a successful connection after dialing a number. You can tailor this time period to the speed of the telephone system you are working with.

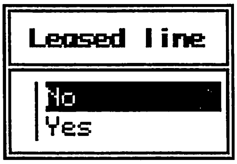
DIAL TYPE



Default: Tone

Most telephone systems support tone dialing, which is faster than the old-fashioned pulse dialing. However, some phone systems, especially in rural areas, still support pulse dialing only. If the telephone in your work place is set to tone, this setting should also be *Tone*. If you are not sure about this setting, call the local phone company and find out.

LEASED LINE



Default: No

If your workplace uses a leased telephone line for modem communications, select *Yes*. If you aren't sure, ask your office manager or system administrator.

REDIAL ATTEMPTS

Default: 0

If you type in a number greater than 0, Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote will attempt to redial a number when you call and fail to make a connection (usually because the line is busy). Type in any number up to 9999.

SECONDS BETWEEN REDIALS

Default: 10

If you have used the field above to specify redial attempts, you may also wish to fill in the number of seconds that Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote should wait before attempting a redial. Type in any number up to 9999.

ADDITIONAL MODEM INITIALIZATION STRING

Default: Blank
Advanced feature

Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote automatically issue the modem initialization string that your modem requires. However, if your modem supports special commands that you wish to use, enter them here. You might use this field, for example, to automatically turn off the speaker of your modem. For a Hayes compatible modem, such a command would be:

```
ATM0
```

If you have selected the *Manual modem* option, use this field to initialize your modem. Follow the instructions in your modem manual, and make sure that the other hardware configuration settings are correct for your modem.

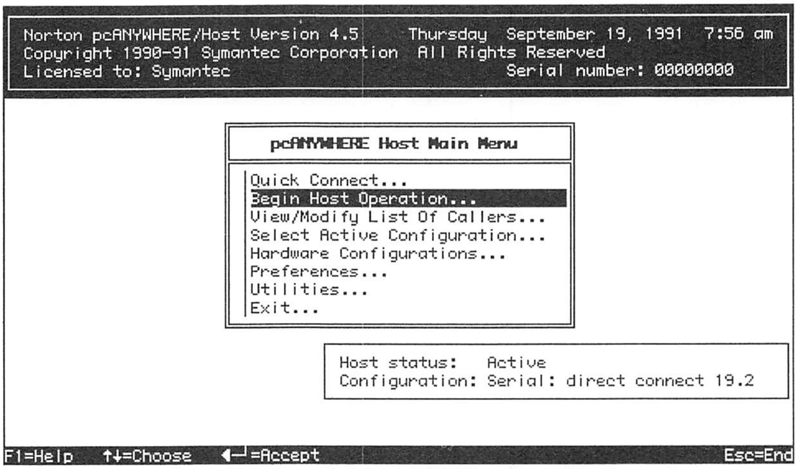
ADJUST SPEED TO MODEM

When *Adjust speed to modem* is set to *Yes*, the serial port speed is always adjusted to the connect speed reported by the modem. If it is set to *No*, the speed is not adjusted unless the specified modem does not support a fixed computer-to-modem speed. Note that the "Hayes compatible" selection will also adjust the speed according to this field.

5

Using Norton pcANYWHERE/Host

Before starting a Norton pcANYWHERE/Host remote computing session, it is necessary to give your computer a name. You can enter a name at connect time, but it is a good idea to decide on the name ahead of time, since the remote user may need to know it too. Check the *Preferences* item on the Norton pcANYWHERE/Host Main Menu, and make sure your computer has a name.



```
Norton pcANYWHERE/Host Version 4.5      Thursday  September 19, 1991   7:56 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                                Serial number: 00000000
```

pcANYWHERE Host Main Menu
Quick Connect...
Begin Host Operation...
View/Modify List Of Callers...
Select Active Configuration...
Hardware Configurations...
Preferences...
Utilities...
Exit...

```
Host status:   Active
Configuration: Serial: direct connect 19.2
```

F1=Help ↑↓=Choose ◄┘=Accept Esc=End

From the Host Main Menu shown above, you can perform these operations:

- **Quick Connect.** Select this menu item when you wish to prepare your machine to become a host by setting up only a few parameters before making a connection.
- **Begin Host Operation.** Select this menu item when you have completed your preparations and are ready to begin a remote computing session. You may: wait for a remote user to contact you, call a remote system, exit Norton pcANYWHERE/Host but keep it available so a remote caller can begin a session, or exit Norton pcANYWHERE/Host requiring the host hot key when it is time to begin the session.
- **View/Modify List of Callers.** This menu choice gives you access to your list of callers. A fill-in-the-blanks form is provided for you to store a password and specify working parameters for each remote user who accesses your system. The "parameters" specify what kinds of privileges this remote user has; for example, can the remote user blank the host screen, reboot the host, use **<Ctrl-Break>**, or change the host mode? This is also where to specify whether or not calls are logged from this remote user and where to print their output.
- **Select Active Configuration.** Before beginning the remote computing session, you must select an active configuration for your system. You can choose a con-

figuration that has already been defined or create a new one.

- **Hardware Configurations.** This menu item allows you to define all the parameters for your system when you function as a host in a remote computing session. See Chapter 4 for a complete discussion of this menu item.
- **Preferences.** This menu item accesses a set of submenus that allow you to define the host's preferences— that is, what is allowed when that machine is the host. The host is to be taken over by the remote user, but done so within the parameters set by the host *Preferences* .

  The *Preferences* menu governs the answers to such issues as: Will a remote user be screened through the passwords entered in the caller information forms, or will there be a general, default password for access to the host system? Will the pop-up file transfer feature be enabled? What is the hot key for host mode menus?
- **Utilities.** The Utilities available in Norton pcANYWHERE/Host include *Hardware Diagnostics*, *View Log Files*, and *Modify Terminal Configurations*. Each of these is covered under its own heading in Chapter 9, Utilities.

Note

Norton pcANYWHERE/Host operation requires about 60K RAM, unless pop-up (background) file transfers are enabled; the pop-up file transfer program requires about 18K more RAM.

STEPS FOR MAKING A CONNECTION

Before attempting host operation, you should take a look at Chapter 2, Norton pcANYWHERE Concepts, so that you understand the way the various pieces fit together in different remote computing environments. Chapter 2 illustrates different scenarios and it is likely one similar to yours is included.

In general, the following sequence is necessary to making a successful connection.

1. The host and remote users make sure they have stored the correct configurations necessary to communicate with other computers. Use the menu option *Hardware Configurations* to define the individual aspects of each configuration.

2. Using *Preferences* from the Host Main Menu, set up the requirements for when your machine will act as the host. An important part of *Preferences* is to name your computer.

3. If you want specific passwords for each caller, use the *View/Modify List of Callers* option from the Host Main Menu to set up passwords for the remote users and to stipulate a number of other parameters for their sessions. If you do, make sure you set the host preference *Use caller information list* to *Yes.*

4. Finally, choose the menu item *Select Active Configuration* to specify the configuration you will use for this session.

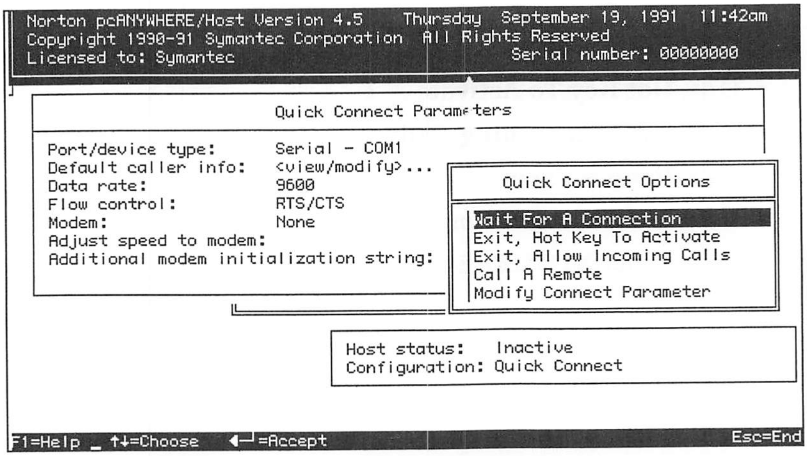
5. Select *Begin Host Operation* to begin a connect sequence with the remote system. Choose a connection mode.

During the session, press the host hot key for host options. Unless you have changed the hot key, it is **<Alt-Right-Shift>**. (Hold down the **<Alt>** key while pressing the right-hand **<Shift>** key.)

Quick Connect

The host *Quick Connect* option lets you quickly prepare your machine to become a host by setting up just a few parameters prior to making a connection. Use *Quick Connect* when you want to test a new hardware setup or when a single active password (contained in the default for *Caller Information)* is acceptable.

OPTIONS



Norton pcANYWHERE/Host Version 4.5 Thursday September 19, 1991 11:42am
Copyright 1990-91 Symantec Corporation All Rights Reserved
Licensed to: Symantec Serial number: 00000000

Quick Connect Parameters

Port/device type: Serial - COM1
Default caller info: <view/modify>...
Data rate: 9600
Flow control: RTS/CTS
Modem: None
Adjust speed to modem:
Additional modem initialization string:

Host status: Inactive
Configuration: Quick Connect

The *Quick Connect Options* menu allows you to begin a host session or change the *Quick Connect Parameters.*

Wait for a Connection

Once selected, no applications can be run by the host system until a session begins. Norton pcANYWHERE informs you when a connection is attempted. This option is generally used for unattended host operation.

Exit, Hot Key to Activate

This option is just like *Exit, Allow Incoming Calls*, but requires a host operator to take further action before a session may begin. It is most often used for technical support of the host operator. It is also convenient when you have set up Norton pcANYWHERE for host operation, and simply want host mode readily available. When you choose this menu item, you are returned to DOS, where you may perform any activities you wish. Norton pcANYWHERE stays resident but remains inactive until you press the host hot key and select the option to allow a remote caller to initiate a session.

When you press the host hot key while this option is set, Norton pcANYWHERE displays the following list of options for you to choose from:

- **Wait For A Call**
- **Exit, Hot Key To Activate**
- **Exit, Allow Incoming Calls**
- **Call Remote Users**
- **Voice-first Connection**
- **Cancel pcANYWHERE**

Exit, Allow Incoming Calls

This option is generally used for unattended host operation. In this host mode, Norton pcANYWHERE stays resident in memory and a session starts when a remote user calls the host, no further action is required from the host operator. In fact, the host operator cannot prevent calls from coming in.

This mode is useful when the host will be running applications that the remote user needs to access when he or she calls. In this case, the remote user may simply hang up the phone while the host is performing a long job. Then, the remote user can call back to check on what the host is doing.

Note

When a remote user ends the session this way, only the host master password or the original remote user's password can be used to access the host a second time. The *Allow Any Password On Reconnect* Host preference overrides this requirement.

When you choose this option, you are returned to DOS, where you may perform any activities you wish. Norton pcANYWHERE remains inactive until a remote caller initiates a session. Norton pcANYWHERE stays resident, held in memory until the remote user starts a session.

Note

Norton pcANYWHERE/Host requires about 60K RAM, unless pop-up (background) file transfers are enabled; the pop-up file transfer program requires about 18K more RAM.

Call A Remote

Use this option when you want to begin the session from the host side. If there is no phone number listed in *Host Preferences*, Norton pcANYWHERE prompts you for it. Then Norton pcANYWHERE dials the number, and displays messages describing the status of the connection. If a connection cannot be made, Norton pcANYWHERE lets you know the reason. Once a remote user has entered a correct password, the session begins.

Cancel And Remove From Memory

This option ends host operation and removes the Norton pcANYWHERE/Host software from memory, returning you to the DOS prompt.

Modify Connect Parameters

Select this option to change any of the *Quick Connect Parameters* shown on your screen. The *Quick Connect Parameters* are saved and used for either host or remote operation. A complete description of the fields on this form can be found in Chapter 4, Hardware Configurations. Description of the default caller information fields is found later in this chapter in the section on *View/Modify List of Callers*.

- **Wait For A Call.** See the description above.
- **Exit, Hot Key To Activate.** Resume this resident mode.
- **Exit, Allow Incoming Calls.** See the description below.
- **Call Remote User.** See the description below.
- **Voice-first Connection.** See description under *Connect Options* in Chapter 6, Norton pcANYWHERE/Remote.
- **Cancel pcANYWHERE.** Ends host operation and removes Norton pcANYWHERE/Host from memory.

Exit, Allow Incoming Calls

This option is generally used for unattended host operation. In this host mode, Norton pcANYWHERE/Host stays resident in memory and a session starts when a remote user calls the host— no further action is required from the host operator. In fact, the host operator cannot prevent calls from coming in.

This mode is useful when the host will be busy running applications that the remote user needs to access when he or she calls. In this case, the remote user may simply hang up the phone while the host is performing a long job. Then, the remote user can call back to check on what the host is doing.

Note

When a remote user ends the session this way, only the host master password or the original remote user's password can be used to access the host a second time. The *Allow Any Password On Reconnect* Host preference overrides this requirement.

When you choose this option, you are returned to DOS, where you may perform any activities you wish. Norton pcANYWHERE/Host remains inactive until a remote caller initiates a session.

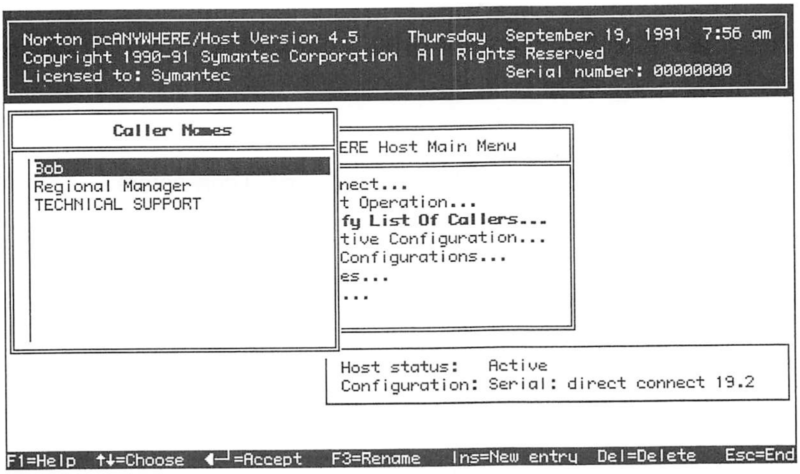
Cancel And Remove From Memory

As mentioned above, this option ends host operation and removes Norton pcANYWHERE/Host from memory, returning you to the DOS prompt.

Call A Remote

Use this option when you want to begin the session from the host side. If there is no phone number listed in *Host Preferences*, Norton pcANYWHERE/Host prompts you for it. Then Norton pcANYWHERE/Host dials the number, and displays messages describing the status of the connection. If a connection cannot be made, Norton pcANYWHERE/Host lets you know the reason. Once a remote user has entered a correct password, the session begins.

View/Modify List of Callers...



```
Norton pcANYWHERE/Host Version 4.5     Thursday  September 19, 1991  7:56 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                           Serial number: 00000000

            Caller Names           ERE Host Main Menu

 Bob                               nect...
 Regional Manager                  t Operation...
 TECHNICAL SUPPORT                 fy List Of Callers...
                                   tive Configuration...
                                   Configurations...
                                   es...
                                   ...

                                   Host status:   Active
                                   Configuration: Serial: direct connect 19.2

F1=Help  ↑↓=Choose  ↵=Accept  F3=Rename  Ins=New entry  Del=Delete  Esc=End
```

View/Modify List of Callers... gives you access to your list of callers and to the information on file about each of those callers. All remote access sessions are governed by the parameter settings contained in a *Caller Information* form.

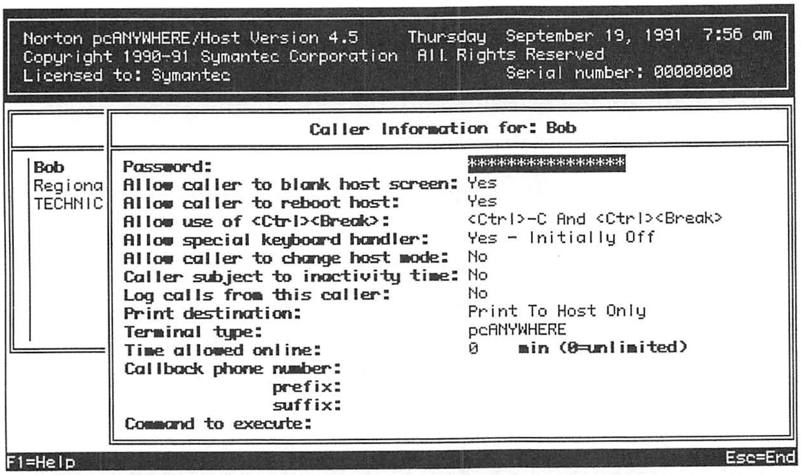
You should set up one *Caller Information* form for each remote user that you wish to provide access to your system. If you don't need to have different passwords and access rights for each caller, you can set up one special form, known as the *Default Caller Information*, through the *Host Preferences: Security* menu.

The setting of the host preference item *Use caller information list* determines if you are supporting multiple users with different passwords or a single password contained in the default caller information. The remote users are known as "callers" because the remote generally calls the host. However, caller entries apply to all remote users, whether they call the host or the host calls them.

From the *Caller Names* screen you can add, rename, or delete caller entries. You can also edit an existing caller entry.

Key	**Function**
Ins	Add a new caller name, up to 30 characters
Del	Delete a caller entry
F3	Rename a caller entry

Caller Information Fields



```
Norton pcANYWHERE/Host Version 4.5      Thursday  September 19, 1991  7:56 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                             Serial number: 00000000

                     Caller Information for: Bob

 Bob       Password:                          ****************
 Regiona   Allow caller to blank host screen: Yes
 TECHNIC   Allow caller to reboot host:       Yes
           Allow use of <Ctrl><Break>:        <Ctrl>-C And <Ctrl><Break>
           Allow special keyboard handler:    Yes - Initially Off
           Allow caller to change host mode:  No
           Caller subject to inactivity time: No
           Log calls from this caller:        No
           Print destination:                 Print To Host Only
           Terminal type:                     pcANYWHERE
           Time allowed online:               0    min (0=unlimited)
           Callback phone number:
                           prefix:
                           suffix:
           Command to execute:
F1=Help                                                              Esc=End
```

Some of the fields described below control the remote user's privileges during the remote computing session. By entering *Yes* in one of these fields, you permit the remote user to exert some control over the host system. We have labelled these fields as *Remote privileges*.

PASSWORD

This field on the View/Modify List of Callers form holds the password assigned to the named remote user. When a remote user types in this password (and the host is using Caller Information Lists), Norton pcANYWHERE/Host checks the form associated with this caller password and applies the specified parameters.

You cannot leave this field blank. Follow these rules in deciding on a password:

- Consult with the remote user and choose a password that is easy to remember.
- Choose a unique password for each caller.
- If the password is to be case-sensitive, use capitalization that is easy to remember. Be sure to set the *Passwords are case-sensitive* host preference to *Yes*.

Use any keyboard characters for the password. Spaces are permitted. When the entry is complete, press ↵.

Once a password has been entered in this field, it is shown as asterisks (*), so that someone who looks over your shoulder cannot see the password for a particular caller. If you highlight the field and start typing or press ↵, the password is displayed.

Note

The next four privileges are meaningful only when the remote keyboard is active during a session. The active keyboard is set using *Preferences*, described in the previous section.

ALLOW CALLER TO BLANK HOST SCREEN

Default: Yes
Remote privilege

Set this option to *Yes* when you want the remote user to be able to suppress the display on the host system screen. Disabling the host display is a possible security measure, because it ensures that unauthorized people are not watching activities on the host system.

ALLOW CALLER TO REBOOT HOST

Default: Yes
Remote privilege

If this option is set to *Yes*, a remote user can select a Norton pcANYWHERE/Remote Session Options menu option to reboot the host computer. The remote user may need to reboot if the host system "hangs."

ALLOW USE OF <CTRL-BREAK>

Default: <Ctrl>-C and <Ctrl-Break>
Remote privilege

This option controls the remote user's entry of **<Ctrl-Break>** and **<Ctrl-C>**. The default setting permits the remote user to enter these characters.

<Ctrl>-C and <Ctrl-Break>

If you enable these keystrokes for the remote user, he or she can use them to halt some applications. The effects of these keys vary.

<Ctrl>-C only

If you enable **<Ctrl-C>**, the remote user will be able to use it to halt DOS activities and batch file operations. Different software applications respond in different ways to this keystroke.

No

Use this option to prevent <Ctrl>-C and <Ctrl-Break> from affecting the host system.

> ***Tip***
> If you are using the DOS "command line to execute after connect" feature to run a DOS batch file, preventing **<Ctrl>-C** and **<Ctrl-Break>** can stop the remote caller from prematurely ending the batch.

ALLOW SPECIAL KEYBOARD HANDLER

Default: Yes - initially off
Remote privilege

Norton pcANYWHERE/Host has a special keyboard handler that may be needed when the host runs certain software programs (most 3270 terminal emulator programs, for example). These programs communicate directly with the host system keyboard hardware, so that Norton pcANYWHERE/Host cannot process keystrokes from the remote system unless the special keyboard handler is used. Generally, you should use the default setting for this field, because the special keyboard handler slows down operations. It should only be used in situations where keystrokes entered by the remote user do not seem to be recognized by the host application.

> ***Tip***
> Because the special keyboard handler is most often used for mainframe terminal emulation programs, this feature can be used to prevent unauthorized entry to mainframes.

The *Allow special keyboard handler* field also allows you to set which keyboard handler level will be initially used for a particular caller.

Yes - initially off

If you use this option, the special keyboard handler will be off when the session begins, but the remote user will be allowed to use the special keyboard handler if it is needed.

Yes - initially on

Select this option when you know your system will, at least initially, be running an application that requires a special keyboard handler in order for the remote keystrokes to be accepted.

No

Use this setting to disable the special keyboard handler. The remote user will not be able to enable it.

ALLOW CALLER TO CHANGE HOST MODE

Default: No
Remote privilege

This option controls the way that the remote user may leave the host at the end of a session.

Yes

The remote user can change the host operating mode when disconnecting. Host Disconnect Options are: Host Waits for Another Call, Hot Key To Reactivate Host, Host Accepts Calls At Any Time and Cancel Host Operation.

No

When the remote user ends the session, the host resumes the mode it was in before the call came in.

CALLER SUBJECT TO INACTIVITY TIME

Default: No

If you have entered an *Inactivity timeout* period in the host preferences form, this option allows you to turn it off or on for this caller.

LOG CALLS FROM THIS CALLER

Default: No

If you enter *Yes* here, a log file is created that stores the remote caller's name and the time and date when a successful connection was made. It is stored in the same directory as your configuration files. The log file is updated each time this caller accesses the host. The filename is AWHL.LOG.

You can view or print log files by choosing *Utilities* from the Norton pcANYWHERE/Host Main Menu. Then select *View Log Files*. More information on viewing log files is included in Chapter 9, Utilities.

Note

Remote users can log calls too. See **Log session**, under the section **Host Information Fields**, Chapter 6, Norton pcANYWHERE/Remote.

PRINT DESTINATION

Default: Print to Host Only
Remote privilege

This setting controls the initial print destination that is in effect during a session with the remote user. The remote user may also redirect printing during a session. See Print Options from the Remote Session Options menu described in Chapter 7, Sessions.

Discard Printer Output

Any data that is normally sent to a printer during the session is not printed or saved.

Print To Host Only

Any printed material is output on the host system printer.

Print To Remote Only

The remote user's PC will receive all printed data. He or she can decide whether it will be output on a printer or saved in a disk file.

Print To Host And Remote

The printed material is output on both the host and remote systems. The remote user can decide whether the print data sent to the remote PC should print on a printer, or be stored in a disk file.

TERMINAL TYPE

Default: pcANYWHERE

Norton pcANYWHERE/Host needs to know what type of machine each caller will be using. Remote users don't need a PC to access an ANYWHERE host—they can use a terminal emulation program that imitates one of the many terminals that Norton pcANYWHERE/Host supports. Select *Terminal Type* for a list of terminals.

If the remote is an IBM PC or compatible and it will be using Norton pcANYWHERE/Remote software, choose *pcANYWHERE.* (You must use this setting if the remote user is planning to make a voice-first connection. Voice-first connections are described in the **Connect to Host** section of Chapter 6, Norton pcANYWHERE/Remote.)

If you wish, you can have the remote user select the terminal type at connection time. Choose the *Ask Caller* terminal type. The remote user will be presented with the same list of terminals that appears here. He or she selects the correct type for the remote system.

If the remote terminal is not on Norton pcANYWHERE's list, the remote user must check the terminal or computer system manual and find out whether the terminal can emulate one of the terminals on Norton pcANYWHERE/Host's menu.

TIME ALLOWED ONLINE

Default: 0 minutes (0 for no limit)

This option is designed to control the amount of time that the remote user may spend accessing the host system. It safeguards against a connection being unnecessarily maintained in case the remote user forgets to end a session with an unattended or disabled host. If you enter a *0* here, there is no limit to the time that the remote user may spend on line. Enter any number of minutes up to 9999.

Note

If a session is ended because the remote user's time limit expires, the next person who accesses the host may have to use the same password as the original remote user, or the host master password. Read about the *Allow any password on reconnect* option.

CALLBACK PHONE NUMBER

Default: Blank

This field only applies to modem connections. If you want the host to call the remote system back after the remote user enters a password, fill in the remote phone number here. This feature is useful for security purposes: it ensures that the host is accessible only to a remote user at this phone number. In addition, the bulk of the phone costs are charged to the host phone number.

Note

The amount of time that elapses before the host calls back (*Delay before callback attempted*) is set in *Preferences.*

Callback phone prefix

Format: select from the list

The *Callback phone prefix* is part of the overall telephone number needed to call back this remote user. It will be sent before the actual phone number, generally being used for access to outside lines through a PBX system or to access a particular long distance service. The prefix is selected from a list maintained by using the *Phone no. prefix/suffix* item from the main menu's *Preferences* selection.

Callback phone suffix

Format: select from the list

The *Callback phone suffix* is part of the overall telephone number needed to call back this remote user. It will be sent after the prefix and phone number, generally being used for credit card numbers. The suffix is selected from a list maintained by using the *Phone no. prefix/suffix* item from the main menu's *Preferences* selection.

COMMAND TO EXECUTE

Default: Blank

You can use this option to automatically execute a DOS command line after a connection is made. The host must be in *Wait For A Connection* mode after AWHOST is first invoked, or the previous session must have been ended with "`AWLOGOFF W`". The command line cannot be executed if the host was activated by a host hot key sequence or while in any other operating mode.

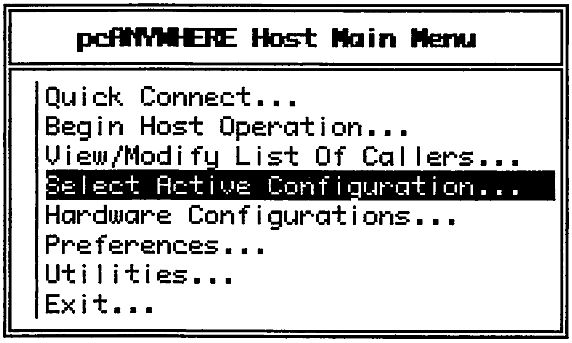
Enter up to 30 characters in this field. If you want to include a carriage return to separate multiple steps in the command line, type `^M`. A carriage return is assumed at the end of the entry. For example:

```
PRINT DATA.FIL^MLOTUS
```

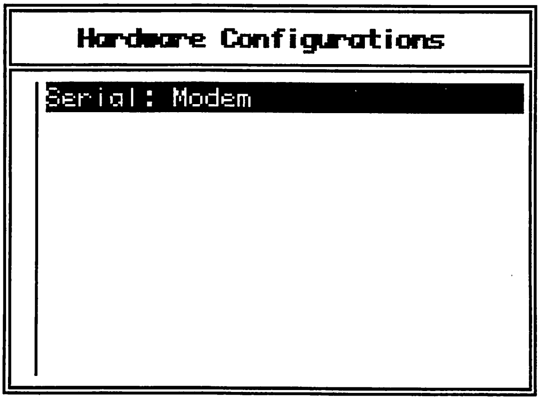
will print a file and then run Lotus.

Select Active Configuration

The *Active Configuration* is the configuration that will be used by the host to accept the next call. The host computer can only accept a call using one hardware configuration at a time. For example, if your host's active configuration is "Serial: COM1, Hayes compatible," that host cannot accept a "Serial: COM2, Hayes Smartmodem 1200" call.


pcANYWHERE Host Main Menu
Quick Connect...
Begin Host Operation...
View/Modify List Of Callers...
Select Active Configuration...
Hardware Configurations...
Preferences...
Utilities...
Exit...

The configuration list is the same one that appears when you choose *Hardware Configurations* from the Norton pcANYWHERE/Host Main Menu.



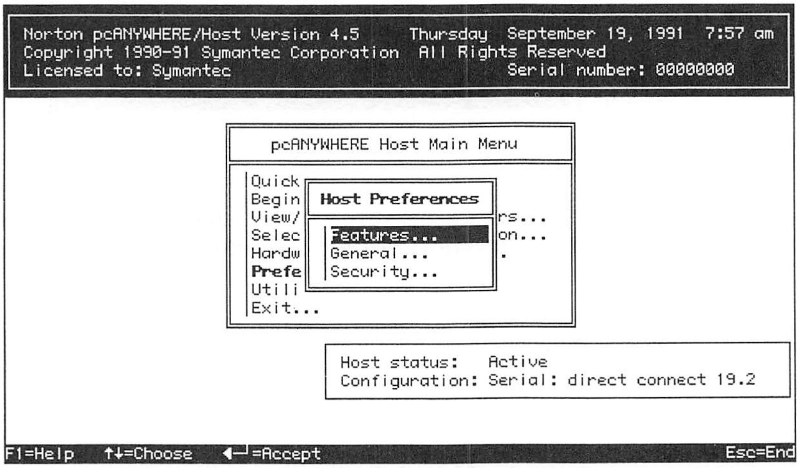
You can can add, delete or modify configurations from this screen. Configurations are fully described in Chapter 4, Hardware Configurations.

After you select a configuration, Norton pcANYWHERE/Host displays the configuration screen for the active configuration you have selected. Unless you want to modify the configuration, press the **<Esc>** key to leave this screen.

The host status box displays the name of the active configuration. There must be a configuration selected before beginning host operation.

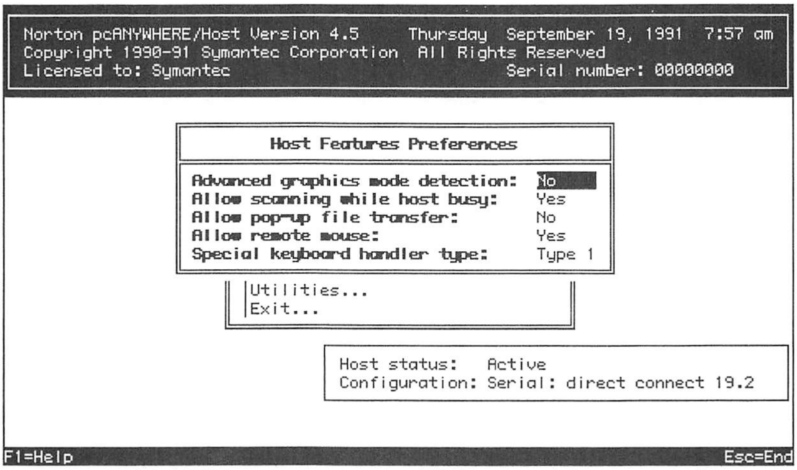
Preferences

The *Preferences* menu item allows you to set up certain parameters that control the way the host can be accessed. It should not be necessary to set up preferences each time you run Norton pcANYWHERE/Host, but you will occasionally need to change these options for special situations.



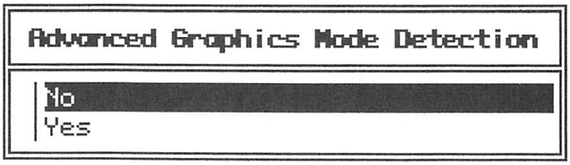
```
Norton pcANYWHERE/Host Version 4.5     Thursday  September 19, 1991  7:57 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                            Serial number: 00000000

                   pcANYWHERE Host Main Menu

                  Quick
                  Begin  Host Preferences
                  View/                       rs...
                  Selec  Features...          on...
                  Hardw  General...           .
                  Prefe  Security...
                  Utili
                  Exit...

                              Host status:   Active
                              Configuration: Serial: direct connect 19.2

F1=Help   ↑↓=Choose   ◄┘=Accept                                      Esc=End
```

FEATURES...



```
Norton pcANYWHERE/Host Version 4.5     Thursday  September 19, 1991  7:57 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                            Serial number: 00000000

                 Host Features Preferences

        Advanced graphics mode detection:  No
        Allow scanning while host busy:    Yes
        Allow pop-up file transfer:        No
        Allow remote mouse:                Yes
        Special keyboard handler type:     Type 1

          Utilities...
          Exit...

                       Host status:   Active
                       Configuration: Serial: direct connect 19.2
```

Advanced graphics mode detection



Default: No

Advanced graphics mode detection is necessary when you run certain programs that use non-standard techniques to display graphic information. Because enabling advanced graphics detection slows Norton pcANYWHERE/Host down, use this option only if you are sure you'll need it.

No

You can leave advanced graphics mode detection disabled if all graphics programs to be run remotely are well-behaved.

Yes

Use this option when you find that graphics are not detected properly and your host's display adapter passes the Hardware Diagnostics Video test for graphics detection.

Allow scanning while host busy

Default: Yes

Scanning the host's screen is the primary method that Norton pcANYWHERE uses to determine what data needs to be sent to the remote computer. It is usually safe (and necessary) for a Norton pcANYWHERE host to perform this operation at any time.

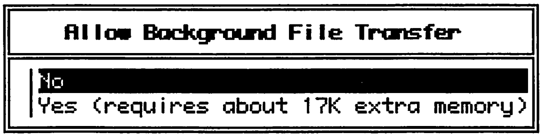
Yes

Use this option unless remote callers have trouble logging in with certain applications.

No

With some applications, allowing the host screen to be scanned at certain rare times can prevent a remote caller from being able to log in with a specific password, forcing that caller to try again. Only change this setting to *No* if you experience that problem frequently.

Allow pop-up file transfer



Allow Background File Transfer

No

Yes (requires about 17K extra memory)

Default: Yes

Norton pcANYWHERE/Host lets you transfer files from host to remote, or vice versa, through the remote's Session Options menu, or from the DOS prompt, using the AWSEND program. (More information on file transfer is included in Chapter 7, Sessions.) If this option is *Yes*, the remote user can transfer files via the Session Options menu.

If this option is *No*, the remote user can still transfer files using the AWSEND program.

Pop-up file (background) transfer means that the remote user can transfer files while the host operator is free to use the host PC. This is the easiest method of file transfer. The disadvantages are :

- the host is unaware of the transfer, a security risk .
- more host memory is required– about 18K extra.
- there is less data compression than with AWSEND.

Maximize display speed

Default: No

This option controls the speed of the display of data on the screen– about an additional 46K is required. If set to *Yes*, it uses an advanced compression technique to speed up the display of text and graphics, although it has more effect on graphics screens and programs. (This option has no effect on Windows screens.)

Allow remote mouse

Default: Yes

This option allows remote callers to use a mouse—about 1K extra memory is required.

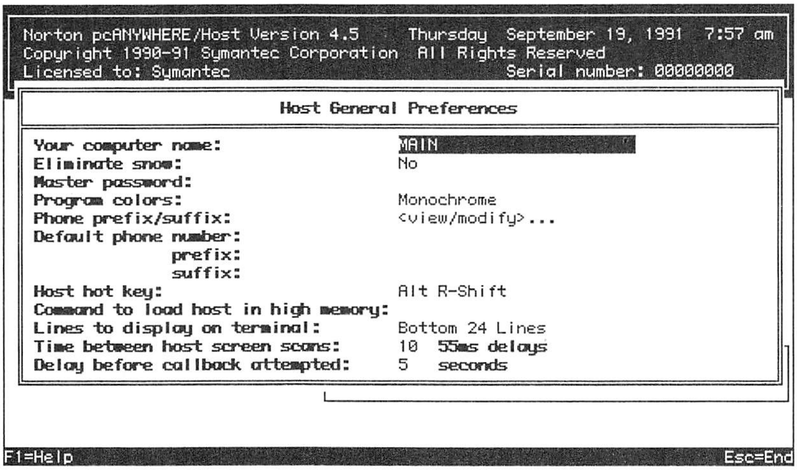
Special keyboard handler type

Default: Type 1

None/Type 1/Type 2

Depending on the particular machine, Norton pcANYWHERE may need to handle the processing of remote keystrokes differently. This only applies to programs which need the Special Keyboard Handler. Use *Type 1* first and if this is not successful, then try *Type 2.*

GENERAL...

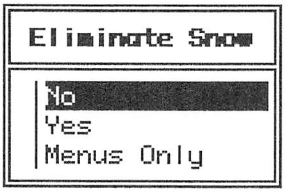


```
Norton pcANYWHERE/Host Version 4.5      Thursday  September 19, 1991  7:57 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                              Serial number: 00000000

                          Host General Preferences

Your computer name:                         MAIN
Eliminate snow:                             No
Master password:
Program colors:                             Monochrome
Phone prefix/suffix:                        <view/modify>...
Default phone number:
              prefix:
              suffix:
Host hot key:                               Alt R-Shift
Command to load host in high memory:
Lines to display on terminal:               Bottom 24 Lines
Time between host screen scans:             10  55ms delays
Delay before callback attempted:            5   seconds

F1=Help                                                                 Esc=End
```

Your computer name

Give your computer a name, because Norton pcANYWHERE/Host uses this field to identify your computer for most remote computing operations. Just type in a meaningful and memorable name for your computer.

Eliminate snow



```
Eliminate Snow

No
Yes
Menus Only
```

Default: No

Some CGA color displays cause snow on the screen, just like the snow or static on a TV set. This preference allows you to eliminate snow on your computer.

Note

You can test for snow using Main Menu Utilities. See Chapter 9, Utilities, and look at the section entitled **Hardware Diagnostics.**

No

Use this selection if you don't want to eliminate snow, or if snow does not display on your hardware. It may speed operations.

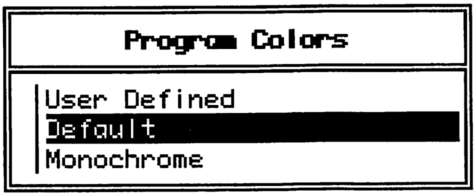
Yes

Use this option to control snow in both host applications and in Norton pcANYWHERE/Host hot key session menus.

Menus Only

Use this option if you want to eliminate snow in the Norton pcANYWHERE/Host hot key menu and submenus only.

Program colors

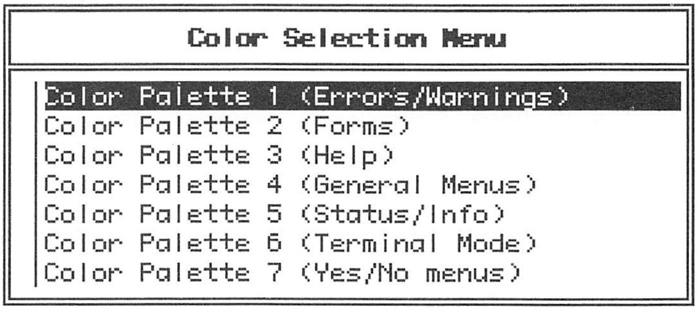


This setting allows you to choose colors for different elements on your screen. Your options are limited by the type of display you have, but you can still use Norton pcANYWHERE/Host to vary your screen display characteristics. Program Colors initially uses the default set of colors and display attributes.

Choose Monochrome if you are having trouble reading the screen. Some non-color laptops, for example, try to display shades of gray or some other color. This may interfere with the clarity of the display. The Monochrome option makes Norton pcANYWHERE/Host use monochrome colors for a better display.

If you select User Defined, Norton pcANYWHERE/Host provides a Color Selection Menu.

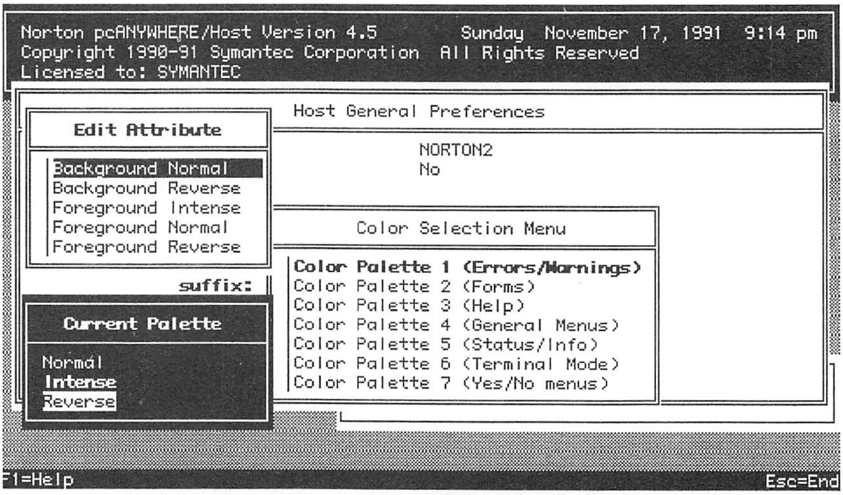
Color Selection Menu


Color Selection Menu
Color Palette 1 (Errors/Warnings)
Color Palette 2 (Forms)
Color Palette 3 (Help)
Color Palette 4 (General Menus)
Color Palette 5 (Status/Info)
Color Palette 6 (Terminal Mode)
Color Palette 7 (Yes/No menus)

Color Selection Menu

The elements that are affected by each color set, or *palette*, are listed on the menu and are mostly self-explanatory.

When you select a color palette, two other menus are displayed on the screen, along with the color selection menu:


Norton pcANYWHERE/Host Version 4.5 Sunday November 17, 1991 9:14 pm
Copyright 1990-91 Symantec Corporation All Rights Reserved
Licensed to: SYMANTEC

NORTON2
No

Color & Attribute Selection

After you choose the color palette for the screen element you wish to change, the Edit Attribute menu appears, listing different types of elements within the selected palette. Foreground elements are used for text. Background elements are the colors the text appears to be displayed on top of. Choose:

Background Normal
Affects normal backgrounds, without highlighting.

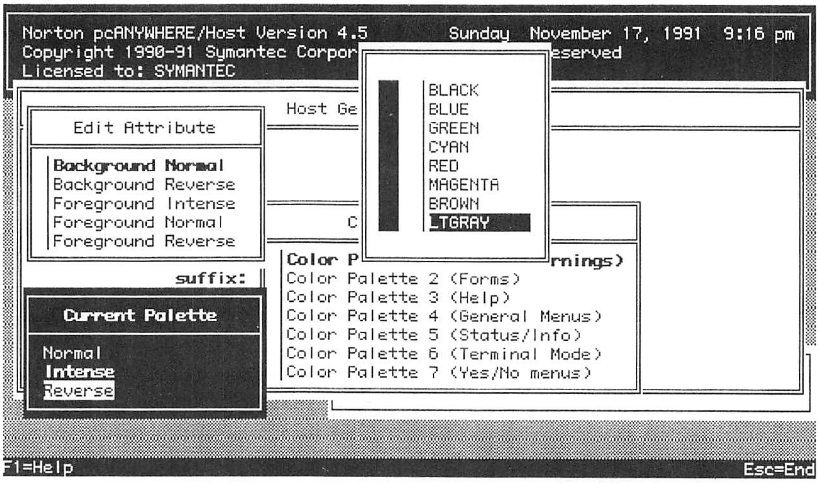
Background Reverse
Affects the background of reverse or highlighted portions of the element.
Foreground Intense
Affects intensified or brightened foreground portions of the element, usually text. There is no intense background attribute.

Foreground Normal
Affects normal foreground portions of the element, usually text, with no highlighting or brightness applied.

Foreground Reverse
Affects the foreground of reverse or highlighted displays.

Color Menu

When you select an attribute for editing, a color menu for that attribute appears. All the available colors for this attribute are listed, and the current color is automatically selected. Depending upon the type of graphics display adapter on your computer system, you may not be able to see all of the color blocks that are shown next to the color names. The screen below shows the screen colors option with the color box displayed.



```
Norton pcANYWHERE/Host Version 4.5          Sunday  November 17, 1991  9:16 pm
Copyright 1990-91 Symantec Corpor                     eserved
Licensed to: SYMANTEC
```

Color selection

Use the arrow keys to choose a color, and press ↵. The effect of your choice is shown in the current palette status box, explained below. If you don't like the choice you've made, simply press ↵ again and choose another color.

When you have finished making changes, press **<Esc>** until Norton pcANYWHERE/Host prompts, *Save changes?*. Press ↵ to save the changes you have made. Those changes will go into effect immediately. If you don't want to save changes, highlight *No* and press ↵. If you want to keep working with colors, press the **<Esc>** key.

Current Palette

This box is not a selection menu, but shows the status of the current palette. As you edit a specific portion of the screen element, this display changes, showing you the effects of your actions. If you are selecting colors, the foreground and background color changes are reflected here. They are applied to the screen attribute that you have chosen for the foreground or background, listed below:

Normal
Indicates the status of normal screen display, with no attributes applied.

Intense
Shows you how brightened text looks like with the current selections applied.

Reverse
Shows you what reverse displays look like, where screen elements are shown with different foreground and background colors. Highlighting is an example of reverse display.

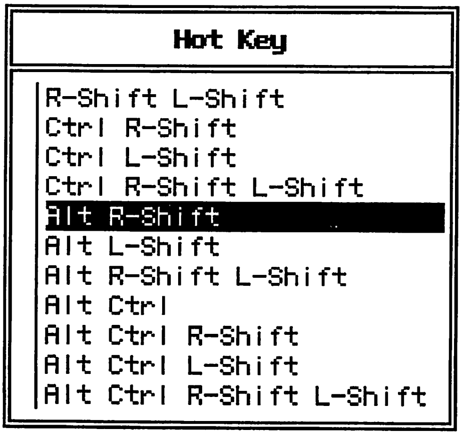
Default phone number

Default: Blank

This field only affects modem connections. If you elect to have the host call a remote system, the phone number that you enter here will be used. If you don't enter a phone number here, Norton pcANYWHERE/Host will prompt you when you are using a modem and choose the *Call A Remote Option* from *Begin Host Operation.*

As explained in the **Caller Information Fields** section above, prefix and suffix fields have been added to the default phone number to accommodate number sequences that must be sent before or after the actual phone number.

Host hot key



Default: Alt-Right-Shift

The hot key is a keystroke combination used to pop up the Host Option menu during a remote computing session. Use the hot key when your keyboard is active and one of these conditions or requirements exists:

- You have begun host operation by choosing *Exit, Hot Key To Activate*, and you are ready to start a session.
- You are engaged in an active session with the remote user and wish to enter chat mode, end the session, or perform other Norton pcANYWHERE/Host activities. (Chat mode is described in Chapter 7, Sessions.)

The available hot key options include all combinations of the **<Ctrl>, <Alt>, <R-Shift> and <L-Shift>** keys. Choose a key combination that does not conflict with other programs that you may use on your host PC, including Norton pcANYWHERE/Remote (which uses **<Ctrl-R-Shift>** as it's default hot key). To activate the hot key during a session, you simply press all the keys in your selection simultaneously.

Command to load host in high memory

Default: Blank
Advanced option

This field is for hosts that have special memory management software for optimizing extended system memory. Type in the command to load Norton pcANYWHERE/Host into high memory.

For example, if your 386 system uses Quarterdeck's QEMM and you have a block of 64K available in high memory, you can use the command:

```
LOADHI
```

to force the resident host portion of Norton pcANYWHERE/Host to be loaded into high memory.

Lines to display on terminal

Default: Blank

Thaoptions are *Top 24 Lines*and *Bottom 24 Lines.*

Time between host screen scans

Default: 10 55ms delays
Advanced feature

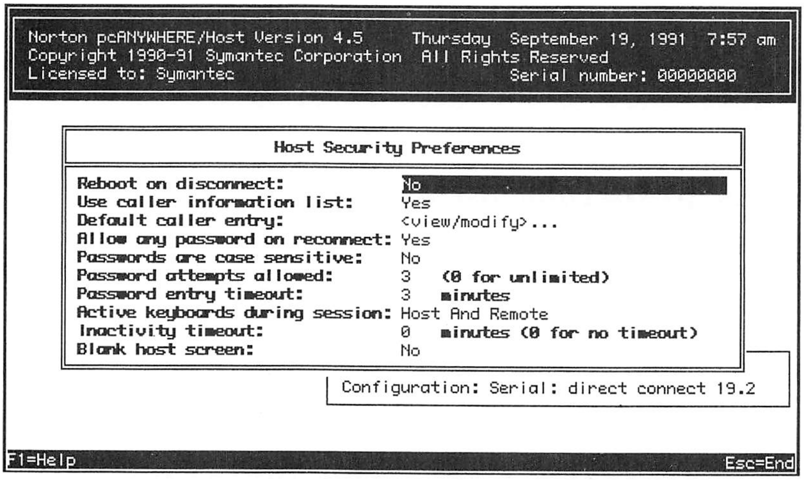
This field should only be changed when screen display operation is not as smooth as you would like. It controls the *scan delay time*, which is the frequency with which Norton pcANYWHERE/Host checks the host screen to see whether anything has changed. The value here is expressed in units of 55 milliseconds (0.055 seconds); thus the default value of 10 is equal to about half a second. You can type in any number up to 99. Smaller numbers will smooth out displays, but slow down your host PC.

Delay before callback attempted

Default: 5 seconds

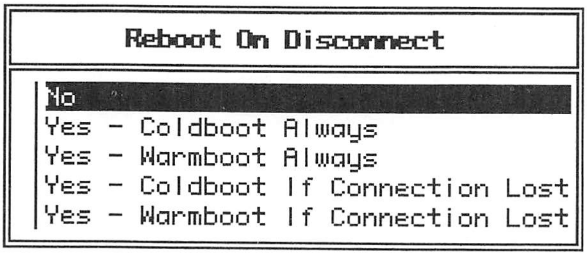
This option affects modem connections only. Norton pcANYWHERE/Host allows you to enter a phone number for a remote listed in a caller information entry. If this phone number is filled in, the host system will call the remote user back after receiving a call— a good security practice, as well as a guarantee that most phone costs are charged to the host. This field determines how long Norton pcANYWHERE/Host waits before attempting to return the call. 5 seconds is the minimum delay. Enter any number of seconds from 5 to 9999.

SECURITY...



```
Norton pcANYWHERE/Host Version 4.5      Thursday  September 19, 1991  7:57 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                              Serial number: 00000000

                          Host Security Preferences

      Reboot on disconnect:              No
      Use caller information list:       Yes
      Default caller entry:              <view/modify>...
      Allow any password on reconnect:   Yes
      Passwords are case sensitive:      No
      Password attempts allowed:         3   (0 for unlimited)
      Password entry timeout:            3   minutes
      Active keyboards during session:   Host And Remote
      Inactivity timeout:                0   minutes (0 for no timeout)
      Blank host screen:                 No

                        Configuration: Serial: direct connect 19.2
F1=Help                                                              Esc=End
```

Reboot on disconnect



```
       Reboot On Disconnect

No
Yes - Coldboot Always
Yes - Warmboot Always
Yes - Coldboot If Connection Lost
Yes - Warmboot If Connection Lost
```

Default: No

No

If this option is set to the default value of *No*, after an unintentional disconnect the host system remains in whatever state the last remote user left it. If a carrier loss occurs accidentally or because of an inactivity timeout period, the next remote caller will have to enter the same password that was used before the carrier loss— or he will have to know the host master password.

Note

You can override this password requirement by using the **Allow any password on reconnect** option, described below. A "coldboot" is equal to turning the power off on the system, and a "warmboot" is the same as using **<Ctrl><Alt><Del>** to reboot the system.

Yes - Coldboot or Warmboot Always

With this option set to *Yes*, the host automatically reboots upon disconnecting from a remote system. The disconnect may be intentional (remote user ends the session), accidental (the phone call gets cut off), or automatic (a timeout occurs).

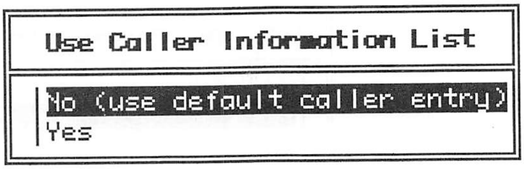
Yes - Coldboot or Warmboot If Connection Lost

These two options apply to an “unscheduled” interruption in the connection, where the remote user does not logoff. (The break in a connection is also called a carrier loss.)

Selecting one of the *Yes* options is appropriate when a number of remote users are expected to access an unattended host system where Norton pcANYWHERE/Host is resident and ready for calls. This way, you are safeguarded against this situation: a remote session ends, leaving an application running or displaying sensitive data. If the host system reboots upon disconnect, the application and data are no longer on screen and visible to the next remote caller, or to observers on the host end. Norton pcANYWHERE/Host, along with any other application, is also stopped.

> ### *Advanced Tip*
> You can set up Norton pcANYWHERE/Host so that it is loaded automatically when the host system reboots. To do so, use the host's AUTOEXEC.BAT file. Follow the directions in the section in Chapter 7, Sessions, entitled pcANYWHERE Command Line Arguments.

Use caller information list

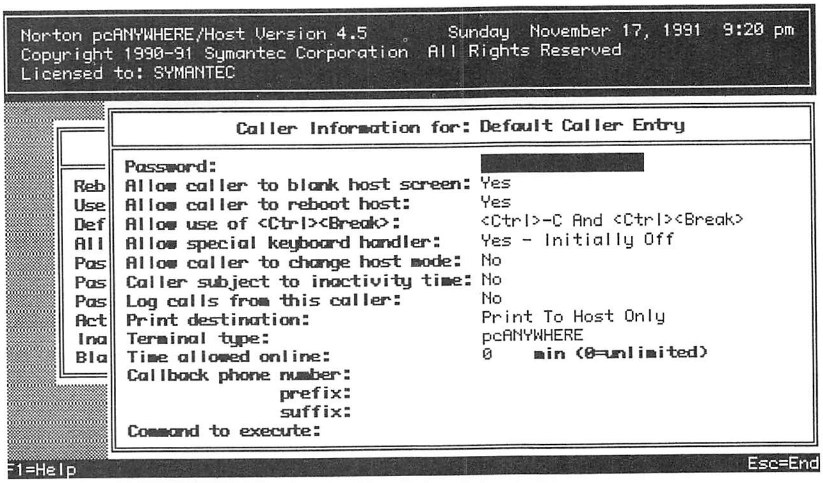


Use Caller Information List

No (use default caller entry)
Yes

Default: No

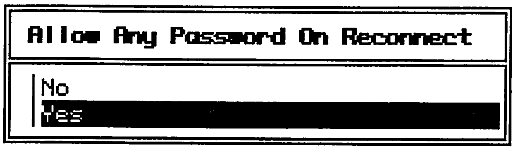
If this option is set to *No*, Norton pcANYWHERE/Host uses the default caller entry and password to screen remote users; if this option is set to *Yes*, Norton pcANYWHERE/Host uses the password entered by a remote caller to search for a match with an entry in the caller information database. If a match is found, parameters for the corresponding caller entry will be used.



```
Norton pcANYWHERE/Host Version 4.5        Sunday  November 17, 1991  9:20 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

          Caller Information for: Default Caller Entry

Password:
Allow caller to blank host screen: Yes
Allow caller to reboot host:       Yes
Allow use of <Ctrl><Break>:        <Ctrl>-C And <Ctrl><Break>
Allow special keyboard handler:    Yes - Initially Off
Allow caller to change host mode:  No
Caller subject to inactivity time: No
Log calls from this caller:        No
Print destination:                 Print To Host Only
Terminal type:                     pcANYWHERE
Time allowed online:               0    min (0=unlimited)
Callback phone number:
                 prefix:
                 suffix:
Command to execute:

F1=Help                                                                  Esc=End
```

When selected, a form appears displaying the parameters for the Default caller entry is displayed.

Allow any password on reconnect

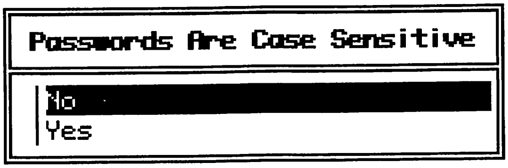


Default: No

If you have elected to use the caller list for screening remote users, this option provides a useful feature. When a remote session is ended by an inactivity timeout, or the remote user hangs up without ending the session, the next remote user will not be able to access your host system—unless he or she happens to know the password of the previous caller, or the host master password.

However, if you set this option to *Yes*, any valid caller password can be used to connect to the host. The disadvantage is that the next caller might see some sensitive data left on the screen from the previous caller.

Passwords are case sensitive



Default: No

If a password is case sensitive, the remote user must enter it exactly as it is in the caller entry field; the same letters must be upper- and lowercase. If this option is *No*, the remote user can enter a correct password without paying attention to which letters are capitalized.

Password attempts allowed

Default: 3 (0 for unlimited)

This option controls the number of times a remote user is allowed to attempt entry of a password to access your system. A setting of *0* allows unlimited attempts. Enter any number up to 99. If a remote user fails to enter a correct password after trying as many times as you have allowed, the session is ended automatically.

Password entry timeout

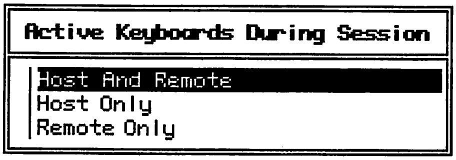
Default: 3 minutes

This option controls the amount of time the host will wait for the remote user to enter a valid password. The setting of *0* minutes permits an unlimited amount of time to pass without the entry of a valid password. Type in any value up to 99.

Note

Use this field to restrict the amount of time that the phone is tied up in the event that the remote user doesn't enter a correct password. This option overrides the previous field, *Password attempts allowed*, if the time period passes without a correct password.

Active keyboards during session



Default: Both Keyboards

Use this option to control the keyboards that can be used during remote computing sessions.

Note

On-line activities are described in Chapter 7, Sessions.

Host and Remote

Both the host and remote users will be able to enter keystrokes on the host system.

Host Only

If the remote user is only going to observe host activities, use this option.

Remote Only

Use this option if your host system is to be unattended during the remote session, and there is no need for the keyboard to be enabled. The host user will not be able to use the hot key for chatting with the remote user, nor end the remote computing session.

Tip
If allowed by the host's caller information entry (see the section **Caller Information Fields** above), the remote user may also disable or enable the host's screen display during the session, for security purposes. The remote user chooses *Special Options* from the Session Options menu, then changes the *Host screen status* field. With the Session menu's *Special Options*, the remote user may also change the status of the host keyboard.

Inactivity timeout

Default: 0 minutes (0 for no timeout)

This option allows the connection to be severed automatically if there is no screen, keyboard, or file transfer activity for a specified amount of time. Establishing an inactivity timeout period safeguards against such situations as the phone line being tied up by the host if the remote user forgets to end the session.

The default entry of *0* disables this feature. You can enter any number of minutes, up to 9999.

Note
The inactivity timeout period is only applied when the *Use inactivity timeout* field in the applicable caller information entry is set to *Yes.* The caller information fields are explained above, in the section entitled **Caller Information Fields**. If a session is ended due to an inactivity timeout, the next remote caller will have to enter the same password as the original caller. This requirement can be overridden by using the *Reboot on disconnect* or *Allow any password on reconnect* options, described previously.

Blank host screen

Default: No

This parameter specifies whether the host screen should be blank during a remote access session. With sufficient privileges, the user can enable or blank the host screen.

Master password

Norton pcANYWHERE/Host's master password is used to provide security. Only those users with the master password can:

- Use the Main Menu *Hardware Configurations* option or change configurations via any other menu
- Use the Main Menu *Preferences* forms
- Modify caller information entries

Norton pcANYWHERE/Host does not require you to have a master password. However, once a master password is entered, it is required from other users who wants to perform any of the operations above.

The master password has another function. If a remote user knows the master password of the host computer, he or she can always use that master password to connect with the waiting host.

6

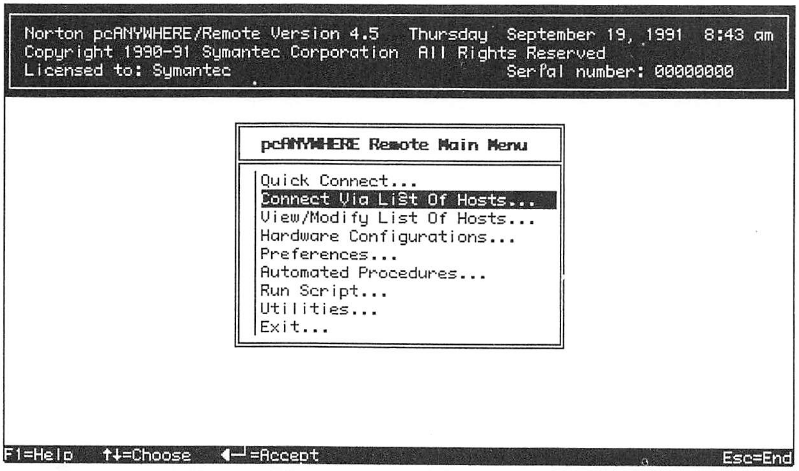
Using Norton pcANYWHERE /Remote

This chapter is devoted to Norton pcANYWHERE/Remote's features and operations, which are key to your remote computing activities. From the system prompt, type AWREMOTE to start the program in the driver's seat of this direct communication with another computer.

Before beginning your session, you should know that communicating with a ANYWHERE host, is different from communicating with a non-ANYWHERE host. These differences are outlined in this chapter. We also use the expression *ANYWHERE session* or *Norton pcANYWHERE remote computing session* to indicate remote computing sessions where both parties are equipped with Norton pcANYWHERE.

In most cases a password is necessary in order to access a host computer. You should check with the host user to find out whether a password is needed. If so, you and the host user should agree on a unique password, or the host user should tell you what the default password is for their computer.

From the Norton pcANYWHERE/Remote Main Menu, you can perform these operations:



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  8:43 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                                Serial number: 00000000
```

- **Quick Connect.** Select this item when you want to set up and make a connection quickly because it contains only the absolutely essential parameters.
- **Connect Via List of Hosts.** Select and connect to a host system. If you know the master password, you can modify the host information entries and corresponding hardware configurations.
- **View/Modify List of Hosts.** If you have the master password, you use this option to modify the host information entries used to automate your sessions.

- **Hardware Configurations.** See Chapter 4, Hardware Configurations, for a complete discussion of this option.
- **Preferences.** This selection allows you to define the hot key that will bring up Norton pcANYWHERE/Remote's Options Menu while you are in a session or terminal mode. Other preference settings are explained below.
- **Automated Procedures.** This option allows you to select or create automatic procedures used to call specific ANYWHERE hosts, and perform certain activities.
- **Utilities.** The Utilities available in Norton pcANYWHERE/Remote include *Hardware Diagnostics*, *Play Back Sessions/Screen* and *View Log Files*. Each of these is covered under its own heading in Chapter 9, Utilities.

STEPS FOR MAKING A CONNECTION

Before attempting remote operation, you should take a look at Chapter 2, Norton pcANYWHERE Concepts, so that you are familiar with how the pieces fit together in various remote computing environments. Different scenarios are illustrated, and it is likely one similar to yours is included.

ANYWHERE Sessions

Here is a brief summary of the basic steps in a typical remote computing session where both the host and remote systems have Norton pcANYWHERE.

1. If they have not done so already, the host and remote users should use the *Hardware Configurations* and *Preferences* main menu options to store hardware configuration data and to name their computers.

2. Use the *View/Modify List of Hosts* option from the Norton pcANYWHERE/Remote Main Menu to make sure that the host you will call is listed. If you need to fill out an entry for your host, you must know the password, if any, to access the host system, and the configuration for reaching the host.

3. Select *Connect Via List of Hosts* and choose the host from the list of host names. Depending upon the host user's decisions, either you or the host may make the call.

   The host user selects *Begin Host Operation* to connect with the remote system.

4. During the session, the pop-up hot key menu can be used to end the session, change the print destination, and perform other activities. Some of the options available to you from a hot key menu may be limited by the host user's preferences and caller entry information.

Non-ANYWHERE Sessions

You can access a non-ANYWHERE host, but the steps are different. The host actions outlined for an non-ANYWHERE session are not pertinent.

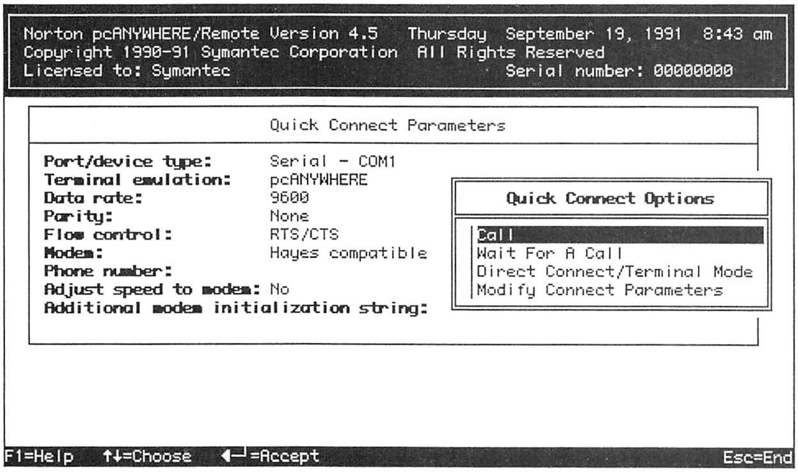
1. Make sure you have stored the correct configuration that is necessary to communicate with the host. Use the *Hardware Configurations* option from the Norton pcANYWHERE/Remote Main Menu.
2. Make sure that the host is included in your host list. Use the *View/Modify List of Hosts* option from the Norton pcANYWHERE/Remote Main Menu. Choose *VT-220* for the *Terminal emulation* field. No host computer name is needed.
3. Select *Connect Via List of Hosts* and choose the host from the list of host names. You must call the host.
4. During the session, the pop-up hot key menu can be used to end the session, and perform other activities.

Note

Norton pcANYWHERE/Remote's hot key menus, the Terminal Options menu and the Session Options menu, allow you to end a session and perform a number of important functions. Although we tell you how to end a session in this chapter, the hot key menus and their capabilities are explained in detail in Chapter 7, Sessions.

Not all sessions are like this, and many of the preparations that can be made in advance can also be performed "on the fly" as you make a connection. The reference sections below and in Chapter 7, Sessions, detail this information.

Quick Connect



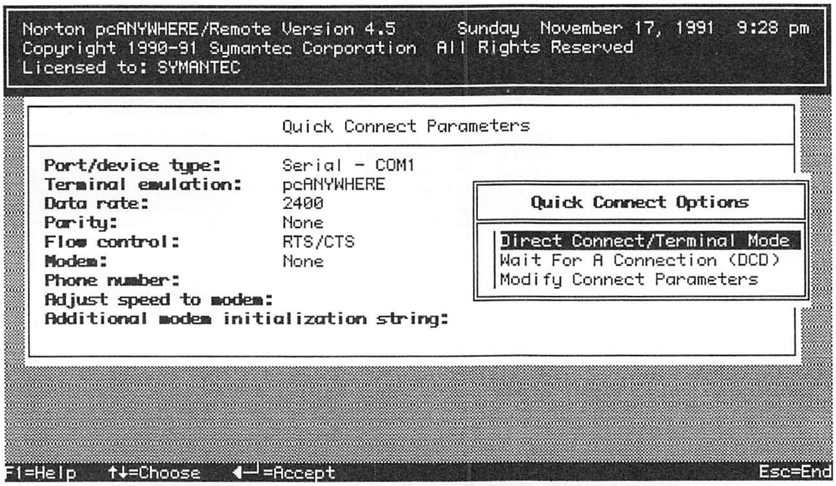
```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991   8:43 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                          Serial number: 00000000

                    Quick Connect Parameters

Port/device type:          Serial - COM1
Terminal emulation:        pcANYWHERE
Data rate:                 9600                  Quick Connect Options
Parity:                    None
Flow control:              RTS/CTS               Call
Modem:                     Hayes compatible      Wait For A Call
Phone number:                                    Direct Connect/Terminal Mode
Adjust speed to modem: No                        Modify Connect Parameters
Additional modem initialization string:

F1=Help   ↑↓=Choose   ◄┘=Accept                                        Esc=End
```

The *Quick Connect Options* differ depending on whether a modem is specified. When the modem is set to NONE, Norton pcANYWHERE can wait for a connection only by checking the DCD (data carrier detect) signal. If a modem is specified, Norton pcANYWHERE can either make a call or wait for a call by programming the modem. Either case supports the *Direct Connect/Terminal Mode* option.

If *Modify Connect Parameters* is chosen, the options menu is closed and you can modify the *Quick Connect Parameters*. After pressing **<Esc>**, the Options menu is redisplayed.

You should only use *Direct Connect/Terminal Mode* under special circumstances. If you are an experienced user, you can talk directly to your modem in terminal mode. *Direct Connect/Terminal Mode* can also be used if you don't have the master password and therefore can't set up your configuration in a host entry.

TERMINAL MODE



```
Norton pcANYWHERE/Remote Version 4.5      Sunday  November 17, 1991  9:28 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

                          Quick Connect Parameters

Port/device type:          Serial - COM1
Terminal emulation:        pcANYWHERE
Data rate:                 2400               Quick Connect Options
Parity:                    None
Flow control:              RTS/CTS          Direct Connect/Terminal Mode
Modem:                     None             Wait For A Connection (DCD)
Phone number:                               Modify Connect Parameters
Adjust speed to modem:
Additional modem initialization string:

F1=Help   ↑↓=Choose   ◄┘=Accept                                      Esc=End
```

Advanced feature

This Norton pcANYWHERE/Remote Quick Connect item allows you to quickly set a hardware configuration and immediately use it to "talk" to your serial port or modem. It is usually used only in some special circumstances:

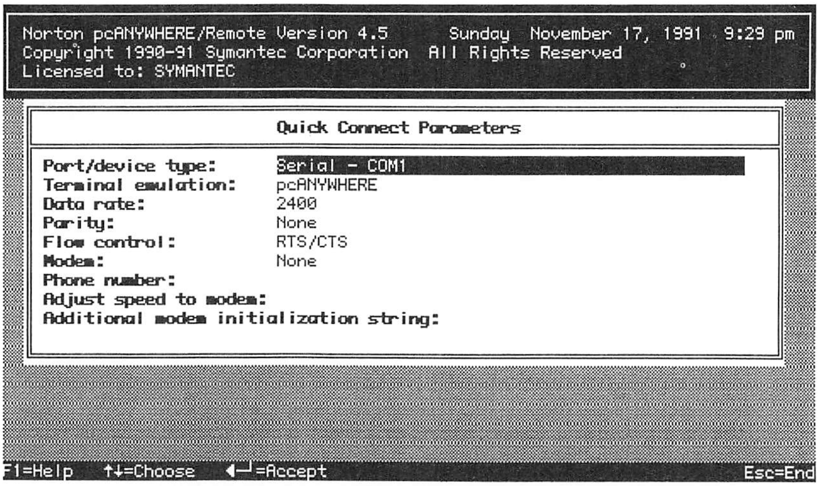
- when you can't set up your hardware configuration any other way because you don't know the master password.
- when you want to type in commands directly to your modem or serial port.

If you are making a modem connection, you may need your modem manual and/or information from the host in order to complete the *Direct Connect/Terminal Mode* fields correctly.

Use this option only if it is absolutely necessary. It requires that you understand more about your modem than is normally necessary with Norton pcANYWHERE/Remote. If you use *Direct Connect/Terminal Mode*, you cannot use autodialing, or call logging.

Once you have completed the fields (described below) for this option, you press the **<Esc>** key to enter terminal mode. Norton pcANYWHERE/Remote may request further information, such as a password, phone number, or host computer name. Once connected, the remote hot key brings up the Terminal Options or Session Options menu.

QUICK CONNECT PARAMETERS

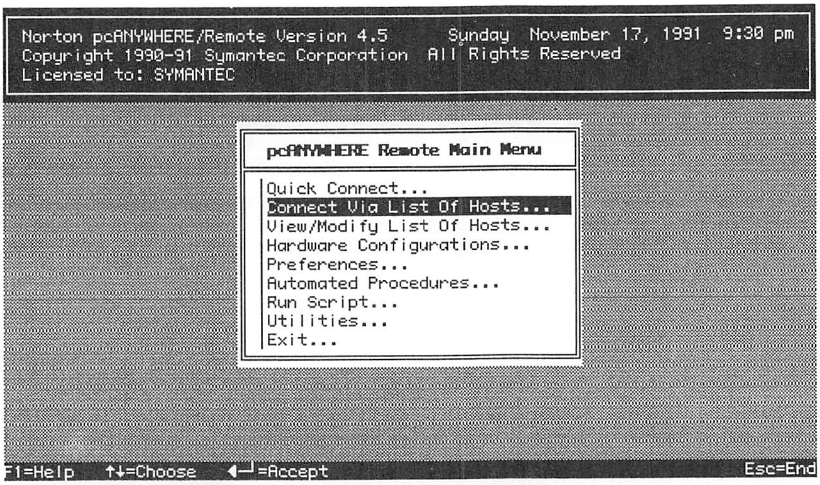


```
Norton pcANYWHERE/Remote Version 4.5      Sunday  November 17, 1991  9:29 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

                        Quick Connect Parameters

  Port/device type:          Serial - COM1
  Terminal emulation:        pcANYWHERE
  Data rate:                 2400
  Parity:                    None
  Flow control:              RTS/CTS
  Modem:                     None
  Phone number:
  Adjust speed to modem:
  Additional modem initialization string:

F1=Help   ↑↓=Choose   ◄┘=Accept                                      Esc=End
```

Port/device type, terminal emulation, data rate, parity, flow control and break length are all covered in detail in Chapter 4, Hardware Configurations.

If you are using a modem, you will need to know at what data rate it can operate. You may also need to experiment to find the top speed at which your computer can communicate for direct connections or communicating with your modem.

Connect Via List of Hosts



```
Norton pcANYWHERE/Remote Version 4.5      Sunday  November 17, 1991  9:30 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

                 pcANYWHERE Remote Main Menu

                 Quick Connect...
                 Connect Via List Of Hosts...
                 View/Modify List Of Hosts...
                 Hardware Configurations...
                 Preferences...
                 Automated Procedures...
                 Run Script...
                 Utilities...
                 Exit...

F1=Help   ↑↓=Choose   ◄┘=Accept                                       Esc=End
```

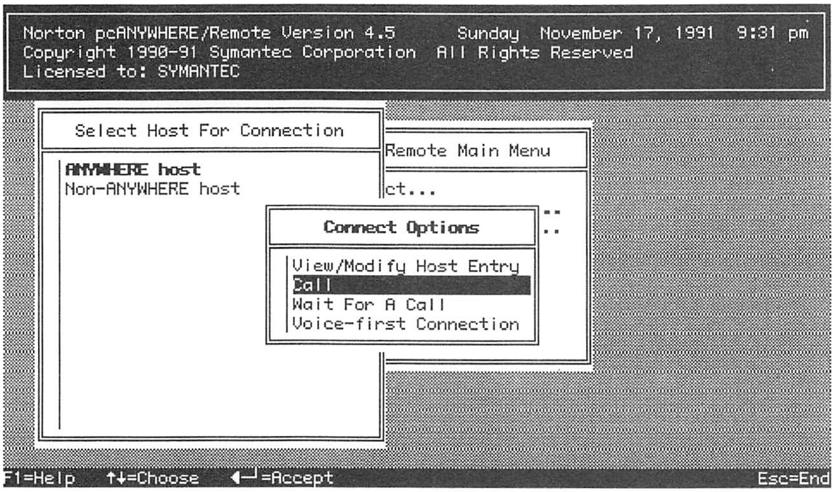
In almost all cases, you use the *Connect Via List of Hosts* option from the Norton pcANYWHERE/Remote Main Menu to reach your host. However, many of the preparations we discuss elsewhere in this chapter, and in Chapter 4, Hardware Configurations, can be performed "on the fly" from this option.

When you select *Connect Via List of Hosts*, Norton pcANYWHERE/Remote displays the list of hosts that have been defined in *View/Modify List of Hosts*, if there are any. Use the **<Ins>** key to add a new host. **<F3>** allows you to rename a selected host. The **<Del>** key will delete a selected host.

If you want to call the host (rather than having the host call you), select the host's name and press the **<F2>** key. Read the section, **Calling the Host**, for more details.

CONNECT OPTIONS

When you select a host, you are presented with the Connect Options menu shown below:



```
Norton pcANYWHERE/Remote Version 4.5      Sunday  November 17, 1991  9:31 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC
```

The last connect option is displayed when your host's entry specifies the Norton pcANYWHERE terminal type. The connect options are described below.

View/Modify Directory Entry

This selection displays the host information form for the selected host. Refer to the **Host Information Fields** section that follows later in this chapter for details on that form.

Call

Use this option to initiate a call to the host, whether or not you are using a modem. Read the next section, **Calling the Host**.

Wait for a call

Select this option if you want to await a call from the host. Norton pcANYWHERE/Remote informs you of the connection status. You can cancel the operation by pressing the **<Esc>** key.

Voice-first connection

If you have been talking on the phone with the host user, and now wish to make a data connection, select this option. Norton pcANYWHERE/Remote prompts you through the steps to make the connection. This option is used only when your telephone and modem share a single phone line.

CALLING THE HOST

If you press the **<F2>** key from the list of hosts, Norton pcANYWHERE/Remote proceeds in different ways, depending upon your hardware configuration and what information was entered into the host entry form. Before a connection is made, you can cancel the call by pressing the **<Esc>** key. As the connection proceeds, Norton pcANYWHERE/Remote issues messages about its progress.

- **If you have a modem:**

  The host's phone number is dialed. If no phone number is specified in the host entry, Norton pcANYWHERE/Remote asks for the number to dial. Type in the full number, which may include hyphens and parentheses. If you are using a leased line, Norton pcANYWHERE/Remote prompts you to begin the session.

- **If you choose *Voice-first connection*, Norton pcANYWHERE/Remote prompts you through the process.**

- **If you are making a direct connection:**

  You are connected as soon as the host is ready. You may have to enter a password.

- **If the host requires a password:**

  When the host password is included in your host information entry, Norton pcANYWHERE/Remote sends it for you automatically. If there is no password in the host entry, you are prompted for it. You won't be able to see what you have typed. If you enter it incorrectly, the host most likely will allow you to try again.

The host may also require you to choose the terminal type that matches your system. Unless you are using a special remote terminal (see *Calling from a Terminal* near the end of Chapter 7, Sessions), choose *pcANYWHERE*. Once you have made your connection, you are on-line with a host computer.

ENDING THE SESSION

If your remote PC is engaged in an ANYWHERE session, the remote hot key (default value of **<Ctrl-R-Shift>**) brings up the Session Options menu. If you're connected to a non-ANYWHERE host, the remote hot key brings up the Terminal Options menu. (Both are described in Chapter 7.) In either case, the menu first comes up with *End Session* already highlighted, allowing you to press ↵ to return to the Norton pcANYWHERE/Remote Main Menu. The AWLOGOFF program also allows a caller to end a Norton pcANYWHERE session. See *Ending A Session With AWLOGOFF* at the very end of Chapter 7.

When you select *End Session*, Norton pcANYWHERE/Remote presents one or more of the disconnect options below; the wording may vary slightly, depending upon your situation:

Disconnect

Highlight *Yes* to disconnect from the host.

Disconnect, host accepts calls at any time

ANYWHERE sessions only

This disconnects you from the host, leaving the host to automatically accept another call. This option is often used for unattended host operation. Norton pcANYWHERE/Host stays resident on the host PC and a session starts when a remote user calls the host—no action is required from the host operator. In fact, the host operator cannot prevent calls from coming in.

Also use this mode when you want to start a possibly long job on the host, hang up, then call back later to check the results. The host computer will be able to continue processing even though the remote PC is no longer watching.

Disconnect, hot-key to re-activate host

ANYWHERE sessions only

This disconnects you, but the host can come back on-line if a host user presses the hot key. This host mode is often used for technical support. It is convenient when the host user has set up Norton pcANYWHERE/Host, and simply wants host mode readily available. When you choose this option, the host is returned to DOS, where the operator may perform any activities. Norton pcANYWHERE/Host remains inactive until the host user presses the host hot key to allow a remote caller to initiate a session.

Disconnect, host waits for a call

ANYWHERE sessions only

This disconnects you, but the host waits for a call with Norton pcANYWHERE/Host active. This option is often used for unattended host operation, because no host activities can take place until a session begins.

Cancel host operation

ANYWHERE sessions only

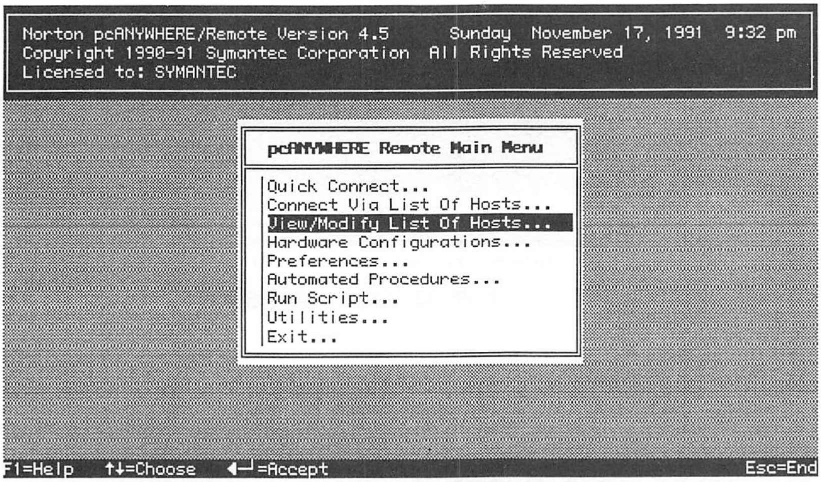
This disconnects you from the host and removes the host software from memory, thus preventing the host from accepting incoming calls. Removal of Norton pcANYWHERE/Host in this manner may be prevented under some circumstances. (For example, if the host is using another resident program.) In either case, Norton pcANYWHERE/Host operation is terminated.

Suspend and connect to another host

ANYWHERE sessions only (Host using Norton pcANYWHERE/LAN)

This allows you to temporarily end your session with the host. The host remains active, and ready to accept another call, but the next caller must issue the same password that you used for access. This option is seen only if you have accessed a host PC (running Norton pcANYWHERE/LAN) through a Norton pcANYWHERE/LAN incoming serial gateway.

View/Modify List of Hosts



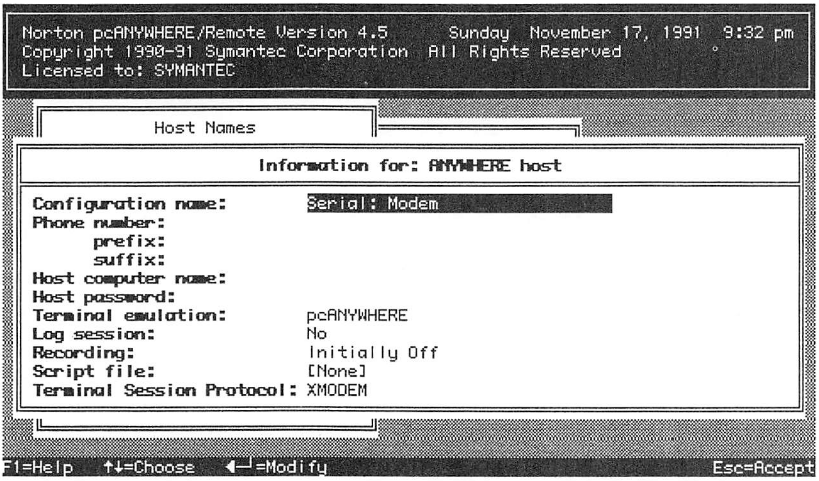
```
Norton pcANYWHERE/Remote Version 4.5      Sunday  November 17, 1991  9:32 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC
```

View/Modify List of Hosts is the place where you will enter the information Norton pcANYWHERE/Remote needs to know about all of the hosts that you can access for a remote computing session and automates the procedures for reaching those hosts. To use this option requires the master password, if one has been defined for your system.

When you select *View/Modify List of Hosts,* Norton pcANYWHERE/Remote displays the list of hosts that have been defined, if any. A host name may contain up to 30 characters. Use the **<Ins>** key to add a new host. **<F3>** allows you to rename a selected host. The **<Del>** key will delete a selected host.

Each host name on the list is accompanied by a fill-in-the blank form. It specifies the configuration to use to connect to the host, the host phone number, the host computer name, the password you need to reach a particular host, and more. In the discussions that follow, the fields that can be left blank are marked as *Optional.* If any of the optional fields are needed to make a connection, Norton pcANYWHERE/Remote will ask you for the proper value when you attempt to make a connection.

Host Information Fields



```
Norton pcANYWHERE/Remote Version 4.5       Sunday  November 17, 1991  9:32 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

                     Information for: ANYWHERE host

Configuration name:           Serial: Modem
Phone number:
      prefix:
      suffix:
Host computer name:
Host password:
Terminal emulation:           pcANYWHERE
Log session:                  No
Recording:                    Initially Off
Script file:                  [None]
Terminal Session Protocol:    XMODEM
```

Note

You must have fully defined host information entries for any host to be accessed using Norton pcANYWHERE/Remote's Automated Process Control system.

CONFIGURATION NAME

Default: Serial: COM1, Hayes compatible

Use this field to specify the configuration to use to reach this host. Norton pcANYWHERE/Remote presents a list of the currently stored configurations for your copy of Norton pcANYWHERE/Remote. Using this list as a foundation, you may add, delete, rename, or edit a configuration. For full information on these procedures, see Chapter 4, Hardware Configurations. If you just want to select a configuration, highlight its name and press ↵. Then press **<Esc>** to return to the entry screen.

PHONE NUMBER

Default: Blank
Optional

If you are making a modem connection with the host, enter the phone number here, even if the modem is attached to a gateway. Enter up to thirty characters, including spaces, hyphens (-) and parentheses () if desired. *Prefix* and *suffix* fields are included to accommodate sequences that need to be sent before or after the phone number itself. See the section on **Caller Information Fields** in Chapter 5 for more information.

HOST COMPUTER NAME

Default: Blank
Optional

Enter a host computer name. If you are dialing into a host running Norton pcANYWHERE/LAN through a Norton pcANYWHERE/LAN gateway, this name must match the host's computer name as entered by the host user via the Norton pcANYWHERE/LAN's Host Main Menu *Preferences*. Such a name may contain any keyboard characters, including spaces, and be up to 24 characters in length.

HOST PASSWORD

Default: Blank
Optional

Use this field to enter the password necessary to gain access to the current host. If a password is necessary, it must be: your password as entered for you in the host computer's caller information entry; or the default password the host uses for all remote callers; or the host's master password.

If you do not enter a password here, you'll be prompted for one at connect time.

TERMINAL EMULATION

Default: pcANYWHERE

This field tells Norton pcANYWHERE/Remote the type of terminal you are emulating to conduct a session with this host.

pcANYWHERE

Use this option if you are accessing an ANYWHERE host.

VT-220

Use this option to reach a non-ANYWHERE host such as an on-line service or another mainframe computer.

LOG SESSION

Default: No

Use this option to log calls made to this host. If you log calls, the following information is recorded automatically: the host name, the host phone number, the time and date the connection was made, and the time and date the connection was terminated.

At the end of each session, Norton pcANYWHERE/Remote prompts you for a project name, and any comments you may wish to enter into the log. You can, however, decide not to record a log entry after a particular call. Log information is saved in an ASCII text file, in the same location specified for your configurations when Norton pcANYWHERE/Remote was installed. The filename is AWRL.LOG.

To view or print log files, choose *Utilities* from the Norton pcANYWHERE/Remote Main Menu. Then select *View Log Files*. More information on viewing log files is included in Chapter 9, Utilities.

RECORDING

Default: Initially Off
Optional

Norton pcANYWHERE/Remote allows you to record your remote computing sessions in a file for later reference. All screen activity that was seen on the remote PC during a session will be saved. Use *Playback* under Utilities on Norton pcANYWHERE/Remote's Main Menu to review them. (See Chapter 9, Utilities.)

Select *Initially On* to begin recording as soon as the session starts.

Select Recording File

The menu that allows you to select the initial recording mode also allows you to name the recording file to be used. When you choose this option, Norton pcANYWHERE/Remote displays the current path. To select a directory for the recording file:

- Select or create a recording file in the displayed directory by pressing ↵, or
- Look at a list of directories by pressing ⇓. Then press ↵ to choose a directory one level up, or highlight the name of a listed subdirectory and press ↵ to work with it, or
- Type in a new path and press ↵.

When you've chosen a directory, Norton pcANYWHERE/Remote displays a list of the current recording files, if any.

- Highlight a filename and press ↵ to use this as your recording file. New recorded data will be appended to the end of this file.

- Press **<Ins>** to name a new recording file in the selected directory. Norton pcANYWHERE/Remote displays the default recording filename, *AW.RCD.* Accept this name or type in a new name. You cannot change the .RCD extension. Press ↵ to use the displayed recording file name.

SCRIPT FILE

The *Script file* field allows you to choose script to run after the connection with the host is established. When you highlight the field and press ↵, you are prompted *Use script file: Yes/No.* If you choose *Yes* you are prompted to *Select Path For Script File.* After specifying the path, you are given a list of available script files to choose from. Choosing one will enter it on the Information form for that host.

Script files are run after communication is successfully established with a host computer. For further details, see Chapter 8, Norton pcANYWHERE Script Language.

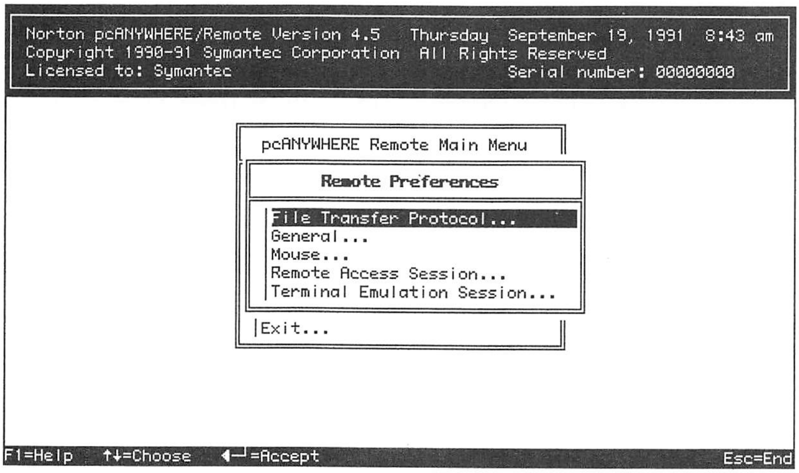
TERMINAL SESSION PROTOCOL

Use this entry to set the default protocol for a terminal emulation session. The options are XMODEM, XMODEM-CRC, XMODEM-1K, YMODEM, Y-MODEM-G, ZMODEM, KERMIT, and ASCII.

Note

The *Terminal session protocol* field is not used for a remote access session.

Preferences



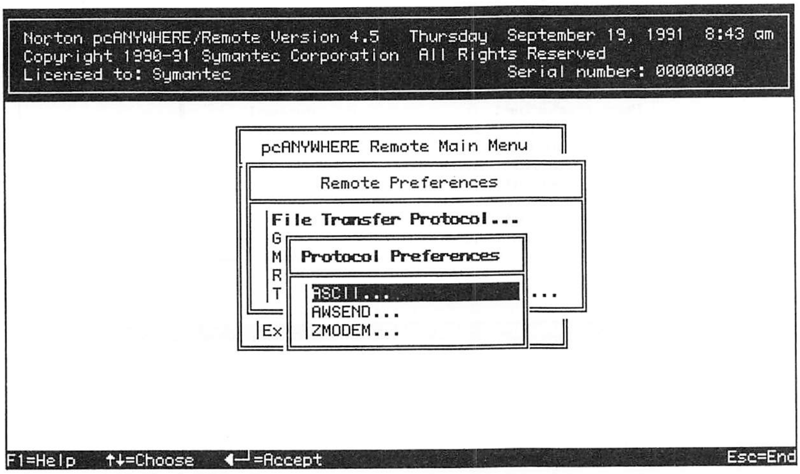
```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  8:43 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                         Serial number: 00000000

                 pcANYWHERE Remote Main Menu
                     Remote Preferences
                  File Transfer Protocol...
                  General...
                  Mouse...
                  Remote Access Session...
                  Terminal Emulation Session...
                 Exit...

F1=Help  ↑↓=Choose  ◄┘=Accept                                      Esc=End
```

Select *Remote Preferences* to set up certain parameters that control the way your on-line session works. It is not necessary to set up these preferences each time you conduct a remote computing session, but you may need to change these fields occasionally for special situations.

> ***Tip***
>
> Some of the Remote Preferences below can be changed during a remote computing session with a Norton pcANYWHERE host. (Your choices, however, may be limited, by the host user.) Instead of changing these settings from the *Remote Preferences* screen, you may prefer to wait until you are on-line and use them to troubleshoot problems if they arise during your session.

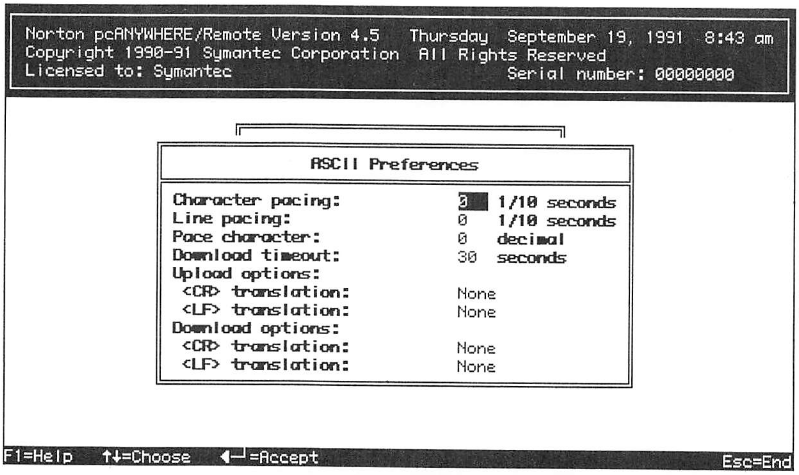
FILE TRANSFER PROTOCOL...

Several of the file transfer protocols supported by Norton pcANYWHERE can be customized according to your own preferences. When a selection is made from this menu, a form is displayed allowing you to set protocol-specific parameters.



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  8:43 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                            Serial number: 00000000
```

ASCII preferences



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  8:43 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                              Serial number: 00000000

                         ASCII Preferences

           Character pacing:                0   1/10 seconds
           Line pacing:                     0   1/10 seconds
           Pace character:                  0   decimal
           Download timeout:                30  seconds
           Upload options:
            <CR> translation:               None
            <LF> translation:               None
           Download options:
            <CR> translation:               None
            <LF> translation:               None
```

The ASCII preferences affect ASCII file transfers made between a Norton pcANYWHERE remote and a non-ANYWHERE host.

Character pacing

Default: 0

Number of tenths of a second to delay after each character is transmitted.

Line pacing

Default: 0

Number of tenths/second to delay after a CR is transmitted before next character is sent.

Pace character

Default: 0

Decimal value of a character to wait for after sending a line. Set to 0 to indicate not to wait.

Download timeout

Default: 30

Number of seconds of inactivity before stopping a file download.

Upload options

Default: None

Upload options pertain to file transfers from your PC to a host. They tell Norton pcANYWHERE what to do with carriage return (<CR>) and line feed (<LF>) characters that are to be transmitted.

<CR> translation:
None - send <CR> as is.
Strip - remote <CR> from transmit data.
Add LF - follow each <CR> with a <LF> character.

<LF> translation:
None - send <LF> as is.
Strip - remove <LF> from transmit data.
Add CR - precede each <LF> with a <CR> character

Download options

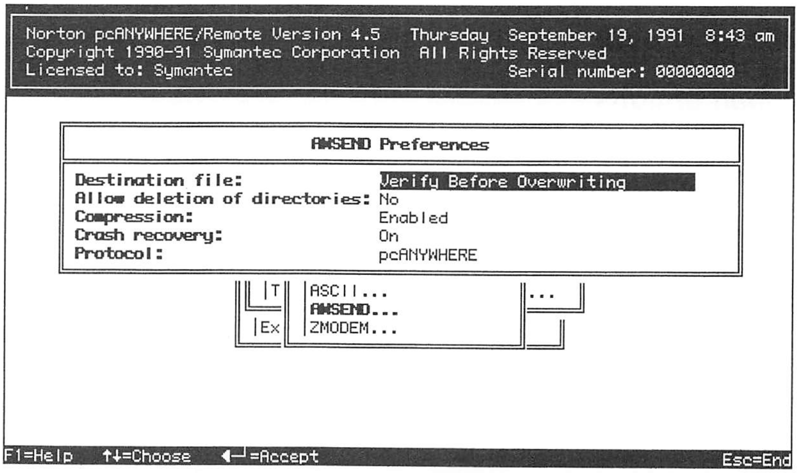
Default: None

Download options pertain to file transfers to your PC from a host. They tell Norton pcANYWHERE what to do with carriage return (<CR>) and line feed (<LF>) characters that are received.

<CR> translation:
None - store <CR> characters as is.
Strip - throw away received <CR>s
Add LF - store a <LF> after each <CR>.

<LF> translation:
None - store <LF> character as is.
Strip - throw away received <LF>s
Add CR - insert <CR> before each received <LF>

AWSEND preferences



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  8:43 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                              Serial number: 00000000
```

```
AWSEND Preferences

Destination file:                 Verify Before Overwriting
Allow deletion of directories:    No
Compression:                      Enabled
Crash recovery:                   On
Protocol:                         pcANYWHERE
```

The AWSEND transfer preferences are the same as the File Transfer Options available during the execution of AWSEND. The default values for these parameters can now be saved with this preferences menu. This is particularly useful when file transfers are done with another PC using Norton pcANYWHERE's automated procedure facility. Only the *Crash recovery* and *Protocol* fields are new options.

Destination file

Default: Verify Before Overwriting

The other options fot this item are:

Always Overwrite Duplicate Files
Never Overwrite Duplicate Files
Always Ask For Destination Name
Overwrite Older Files Only

Allow deletion of directories?

Default: No

Compression

Default: Enabled

Crash recovery

Default: On

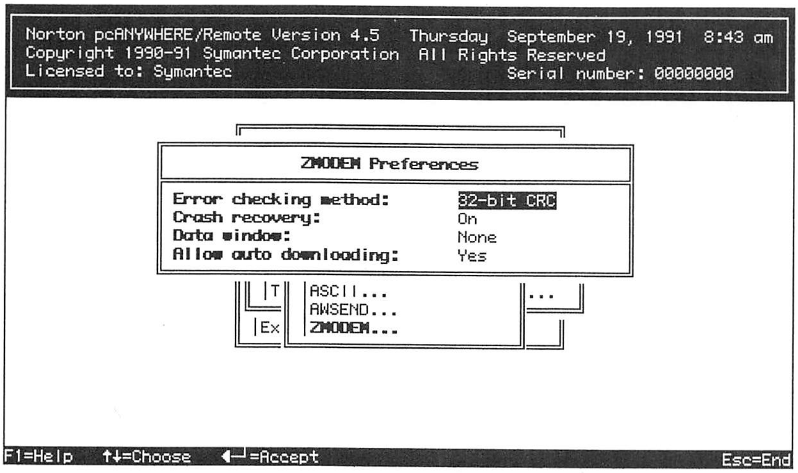
Enabling crash recovery makes it possible to continue a partially completed file transfer from the point of an interruption. In order to do this, Norton pcANYWHERE saves partially received files (except if the operator cancelled the transfer) with a file name extension of ".{P}". Then, before receiving a file, Norton pcANYWHERE will check to see if a partially received file matches in date, time, and the original file name extension. If so, the transfer starts from the point where it left off.

Protocol

Default: pcANYWHERE

The AWSEND program supports either Norton pcANYWHERE's proprietary streaming protocol or ZMODEM. Some hardware environments (such as using US Robotics HST modems) work better with ZMODEM. In addition, with all other things being equal, binary files will normally transmit more quickly with pcANYWHERE's protocol.

ZMODEM preferences



Norton pcANYWHERE/Remote Version 4.5 Thursday September 19, 1991 8:43 am
Copyright 1990-91 Symantec Corporation All Rights Reserved
Licensed to: Symantec Serial number: 00000000

ZMODEM Preferences

Error checking method: 32-bit CRC
Crash recovery: On
Data window: None
Allow auto downloading: Yes

The ZMODEM preferences affect ZMODEM file transfers made between a Norton pcANYWHERE remote and a non-ANYWHERE host.

Error checking method

Default: 32-bit CRC

There are two different checksum methods used by ZMODEM: 32-bit CRC and 16-bit CRC. The 32-bit CRC is less prone to error, although either one will work extremely well.

Crash recovery

Default: On

See the description of crash recover under the AWSEND preferences section above.

Data window

Default: None

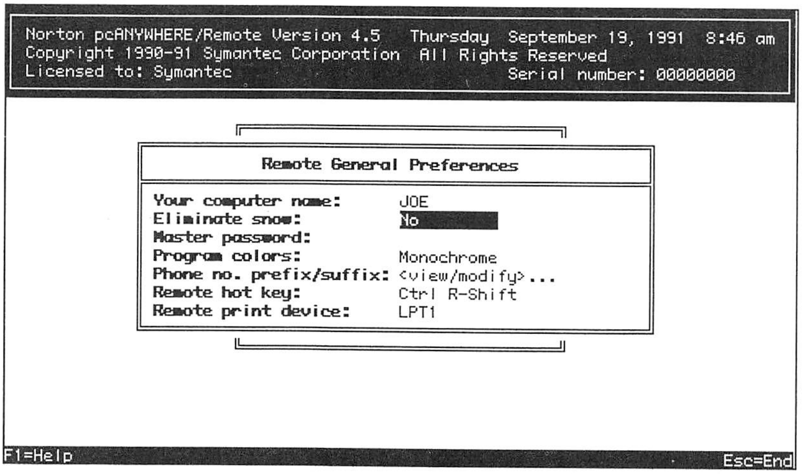
This ZMODEM preference determines how much data can be transmitted/received before positive acknowledgements are given. If NONE is selected, ZMODEM protocol will only inform the other side if an error is detected. The other options are 2K and 4K.

Allow auto downloading

Defatult: Yes

Auto downloading makes it possible for a Norton pcANYWHERE remote in terminal mode to receive a file without any operator intervention. If enabled and a special ZMODEM file transfer start sequence is received by Norton pcANYWHERE, a file transfer operation will automatically begin. Otherwise, you would have to hit the remote hot key to start a file transfer.

GENERAL...



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  8:46 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                           Serial number: 00000000

                    Remote General Preferences

         Your computer name:         JOE
         Eliminate snow:             No
         Master password:
         Program colors:             Monochrome
         Phone no. prefix/suffix:    <view/modify>...
         Remote hot key:             Ctrl R-Shift
         Remote print device:        LPT1

F1=Help                                                          Esc=End
```

Your computer name

Give your computer a name, because Norton pcANYWHERE/Remote uses this field to identify your computer for most remote computing operations. Just type in a meaningful and memorable name for your computer.

Eliminate snow

This is the same as *Eliminate snow* in the Norton pcANYWHERE/Host *Preferences* menu item. See Chapter 5, Norton pcANYWHERE/Host

Master password

This is the same as *Master password* in the Norton pcANYWHERE/Host *Preferences* menu item. See Chapter 5, Norton pcANYWHERE/Host

Program colors

This is the same as *Program colors* in the Norton pcANYWHERE/Host *Preferences* menu item. See Chapter 5, Norton pcANYWHERE/Host.

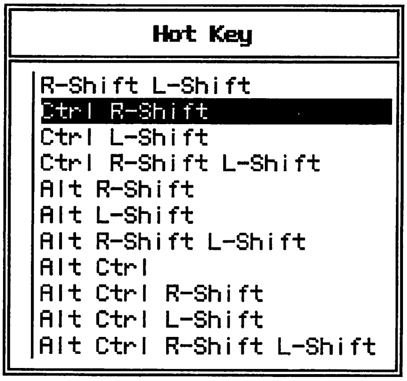
Phone no. prefix/suffix: <view/modify>

When *Phone no. prefix/suffix:* is selected, you can create a table of phone number strings that can be used to precede or follow telephone numbers in your Host Information table. Associated with each string is a name so you can identify when the string should be used.

Up to ten prefix/suffix strings can be specified. To create strings, simply type them into the table. This form is initially blank. A highlight appears where you can enter the first name. Names can be up to 20 characters long. The prefix/suffix values can be up to 30 characters long.

Press ↵ to edit a field. Press **<Esc>** to exit the form.

Remote Hot Key



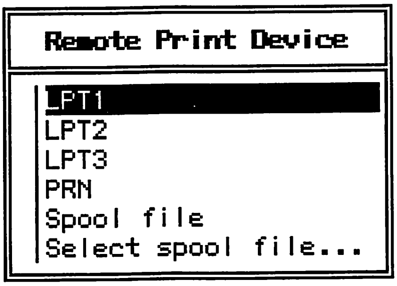
Hot Key

R-Shift L-Shift
Ctrl R-Shift
Ctrl L-Shift
Ctrl R-Shift L-Shift
Alt R-Shift
Alt L-Shift
Alt R-Shift L-Shift
Alt Ctrl
Alt Ctrl R-Shift
Alt Ctrl L-Shift
Alt Ctrl R-Shift L-Shift

Default: Ctrl-Right-Shift

The remote hot key is a special keystroke combination used to bring up a menu of Norton pcANYWHERE/Remote operations during a remote computing session. The available hot key choices include all combinations of the **<Ctrl>**, **<Alt>**, **<R-Shift>** and **<L-Shift>** keys. Choose a key combination that does not conflict with other programs that you may use on your host PC, including Norton pcANYWHERE/Host (which uses **<Alt-R-Shift>**). To activate the hot key during a session, you simply press all the keys in your selection simultaneously.

Remote Print Device



Default: LPT1

Printing during a remote access session may take place on either or both of the host and remote PCs. When printed output is directed to your remote PC, the value in this field controls the destination of any printing done on your own system. Select the printer port where your printer is installed, or elect to send print-bound information to a a spool file. Here are the options:

LPT1/LPT2/LPT3

Use these options to choose a specific parallel port for a parallel printer on your system.

PRN

If you have set up your printer using the DOS MODE command, or you are not sure which port your printer is on, select this option.

Spool File

Use this option when you wish to receive the print-bound data, but don't have a printer currently available on your system. Instead of going to a printer, the data is stored in a file on your hard disk. The file name is specified by the file name you set up using the *Select spool file* option.

Select spool file

This option allows you to enter the path and file name where spooled print data will be placed. To print the contents of the file at a later time, use the DOS COPY or PRINT command, or any other printing program. Consult your DOS manual or system administrator for help.

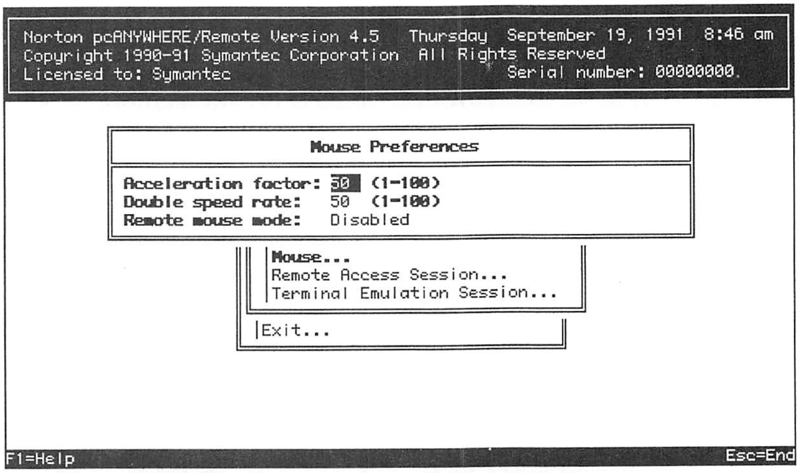
When you choose this option, Norton pcANYWHERE/Remote displays the current path. To select a directory for the spool file:

- Press ↵ to select or create a spool file in the displayed directory, or
- Press ⇓ to look at a list of directories. then select the ".." entry to choose a directory one level up, or
- Type in a new path and press ↵.

When the desired directory name is selected, Norton pcANYWHERE/Remote displays a list of the current spool files, if any. You may either:

- Highlight a filename and press ↵ to use this as your spool file, or
- Press **<Ins>** to name a new spool file in this location. Norton pcANYWHERE/Remote displays the default spool filename, *AW.SPL*. Accept this name or type in a new name. You cannot change the .SPL extension.

MOUSE...



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  8:46 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                            Serial number: 00000000.
```

```
                    Mouse Preferences

Acceleration factor: 50  (1-100)
Double speed rate:   50  (1-100)
Remote mouse mode:   Disabled
```

Acceleration factor

Default: 50

The acceleration factor determines how fast the mouse cursor will move as related to the speed you move the physical mouse device. The larger the number, the faster the mouse cursor will appear to move.

Double speed rate

Default: 50

Even when the acceleration factor may be slow, there are times when you wish to move the mouse cursor a large distance on the screen. The double speed rate is essentially a threshold distance at which the mouse will move twice as far on the screen for the same hand movement. The larger the double speed rate, the faster you must move the physical mouse to cause double speed movements of the screen mouse cursor.

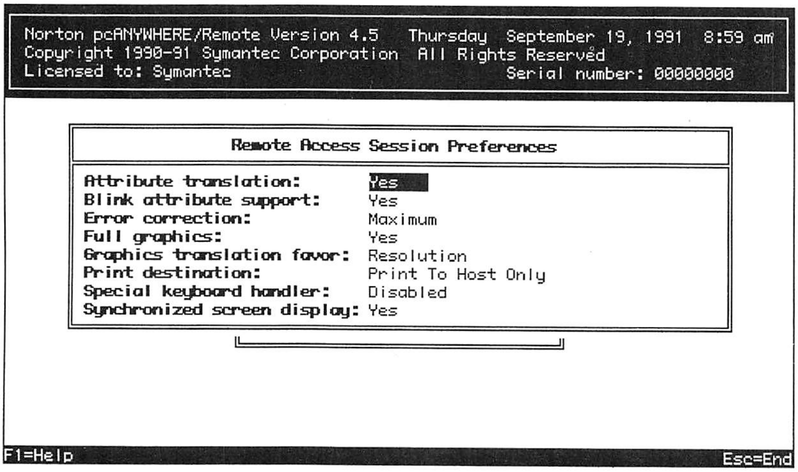
Remote mouse mode

Default: Disabled

Whenever a mouse cursor appears on the host screen, it will be seen on the remote PC. However, based on the remote mouse mode, you will have varying control over how the remote mouse will operate. These are the options:

Disabled - no remote mouse operation
Enabled - track always: show a separate remote mouse cursor
Enabled -track always, one mouse: no separate remote mouse cursor
Enabled - track when button pressed: the remote mouse cursor will move as the mouse is moved. The host's mouse cursor will not move until the remote mouse's button is pushed.

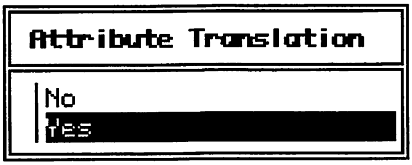
REMOTE ACCESS SESSION...



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  8:59 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                             Serial number: 00000000

                  Remote Access Session Preferences

    Attribute translation:          Yes
    Blink attribute support:        Yes
    Error correction:               Maximum
    Full graphics:                  Yes
    Graphics translation favor:     Resolution
    Print destination:              Print To Host Only
    Special keyboard handler:       Disabled
    Synchronized screen display:    Yes

F1=Help                                                                Esc=End
```

Remote Access Session Preferences only affect sessions between a Norton pcANYWHERE /LAN remote and host.

Attribute Translation



Default: Yes.

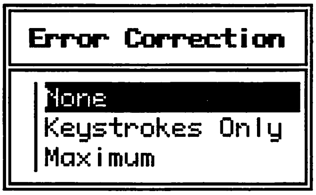
Attribute translation is a Norton pcANYWHERE feature that is necessary when you have a color host but a monochrome remote. When enabled, the remote software makes its best guesses as to which host colors should be displayed as black-on-white or white-on-black at the remote PC. It should usually be left on. Change this option to *No* only if incorrect characters appear on a monitor with a Hercules adapter used in RAM-font mode (refer to the Hercules user manual for more information).

Blink Attribute Support

Default: Yes.

Blinking is a screen display attribute that causes a screen character to flash on and off. Only change the default setting to *No* if you unexpectedly experience this kind of blinking at an unlikely time during a session.

Error Correction



Error Correction

None
Keystrokes Only
Maximum

Default: None

Noisy phone connections can cause incorrect characters to appear on the remote screen during a session. If you use error correction, Norton pcANYWHERE retransmits incorrect characters automatically so you never see them. Error correction does slow down performance slightly. Here are your options for error correction:

None

This option provides the fastest performance, but does not prevent erroneous characters from reaching the screen. Use this option if you do not experience noisy lines or if both host and remote modems are error-correcting.

Keystrokes only

This option screens out any errors in real-time keystrokes that are transmitted.

Maximum

This option screens out all phone noise errors from reaching the remote computer or host, by verifying the data before it is displayed. Use this option when data accuracy is critical.

Full graphics

Default: Yes

Full graphics implies that graphics images displayed on the host will appear as complete as possible on the remote's screen. Setting this option to *No* will speed up the display of graphics screens, but the resulting remote images will be approximations.

Also, this feature controls whether or not the Host should send download fonts to the remote. Some applications programs change the font of one or more text characters. If the *Full graphics* is set to *Yes*, the Host will send the new font information to the remote. Because download fonts can take a fairly long time (especially if many characters are modified and/or the communication speed is 2400 or below), it may be desirable to disable the transmission of download fonts.

Graphics translation favor

Default: Resolution

When graphics translation is needed to approximate images from one type of video adapter to another, Norton pcANYWHERE can be asked to do a better job in converting the colors or the resolution. In either case, something has to be sacrificed.

Print destination

Default: Print to Host Only

The other available options are:

Print to Remote Only
Print to Host and Remote
Discard Printer Output

Special keyboard handler

Default: Disabled

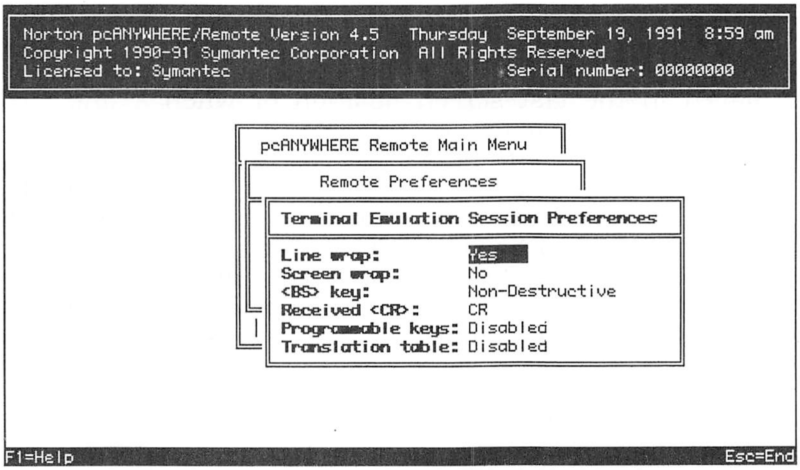
This remote preference sets the initial desired special keyboard handler mode when dialing a Norton pcANYWHERE host. This setting will override any value store in the host's Caller Information entry for this caller. The other avaiulable options are: Level 1/Level 2/Level 3

Synchronized screen display

Default: Yes

This preference allows you to choose the screen synchronization mode you want as your default when calling Norton pcANYWHERE host PCs.

TERMINAL EMULATION SESSION...



```
Norton pcANYWHERE/Remote Version 4.5   Thursday  September 19, 1991  8:59 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                          Serial number: 00000000
```

pcANYWHERE Remote Main Menu
Remote Preferences
Terminal Emulation Session Preferences
F1=Help
Esc=End

```
Line wrap:           Yes
Screen wrap:         No
<BS> key:            Non-Destructive
Received <CR>:       CR
Programmable keys:   Disabled
Translation table:   Disabled
```

The Terminal Emulation Session preferences is the one set of terminal parameters that will be in use during a communications session with a non-ANYWHERE host.

If you wish to make use of the programmable function keys and/or translation tables options, the information necessary for their use is stored in individual files. Function key files have the extension .KEY and translation tables have the extension .XLT.

Line wrap

Default: Yes

Line wrap is a terminal parameter that determines what happens when a character is displayed in the last screen column (column 80). If line wrap is set to No, the cursor will stay in the last column. Otherwise the cursor will advance to the first column of the next line. If the character displayed was on the last line, the result depends on the *Screen wrap* parameter.

Screen wrap

Default: No

Screen wrap determines what happens when a character is displayed in the last screen position or when a line feed character is to be acted upon. If screen wrap is set to *Yes*, the screen is treated as if the top left corner were adjacent to the bottom right corner. In this case, displaying a character in the bottom right would cause the cursor to go to the top left. If screen wrap is set to *No*, displaying a character in the bottom right would cause the screen to scroll and the cursor to go to first position on the bottom line. In either case, "displaying" a line feed from the bottom line will also cause the screen to scroll and the cursor will not move.

<BS> key

Default: Non-Destructive

The backspace key can be programmed to either send a standard (non-destructive) backspace code (08) or a destructive backspace code (127), also known as a DEL code.

Received <CR>

Default: CR

This field determines what the terminal emulator will do when a carriage return code is received. If set to CR/LF, Norton pcANYWHERE will move the cursor down one line after processing the carriage return code. Otherwise the cursor moves to the first position on the current line.

Programmable keys

Default: Disabled

Norton pcANYWHERE lets you define what codes will be transmitted when you press the various PC function keys in their unshifted state or when pressed in conjunction with the <Shift>, <Ctrl >or <Alt> keys.

Sets of user-define programmable function key strings are stored in individual files with the extension ".KEY". If enabled, the name of the key file is displayed (e.g., Programmable keys: AW.KEY). If disabled, the word disabled appears in the Terminal Emulation Session Preferences field.

If *Enabled* is selected, the user selects the name of a .KEY file using Norton pcANYWHERE's standard file selection method (select directory, then the file). A new .KEY file can be specified by pressing **<Ins>** while the file list is displayed.

A set of programmable keys consist of the 10 function keys in one of four modes: unshifted, shifted, with **<Ctrl>,** and with **<Alt>**.When a selection is made (or a new one is added), select a group to view/edit:

Unshifted Function Keys

Shifted Function Keys

Ctrl-Function Keys

Alt-Function Keys

After you choose which type function key to view or edit, you may view or modify the list of programmable keys which appears. You can enter a string with "^" codes to specify control characters. The maximum length of each string is 30 characters.

Translation table

Default: Disabled

Translation tables let you specify what character codes will be received and transmitted during a terminal emulation session.

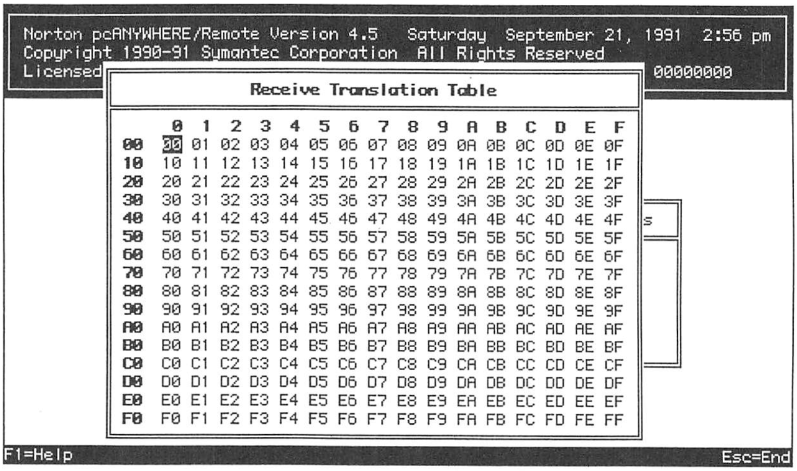
Each set of receive/transmit translation tables is stored in a file with the extension ".XLT". If *Enabled*, the name of the translation file is displayed in the Terminal Emulation Session Preferences screen (e.g., Translation table: AW.XLT). If disabled, the word disabled appears in the field.

If *Enabled* is selected, you choose the name of a translation file using the standard file selection method. A new translation file is specified by pressing **<Ins>** when the file list is displayed.

When a selection is made (or a new one is added), select from one of the following to view/edit either the receive translation table or the transmit translation table:

Receive...
Transmit...

When a table is selected, the following form is displayed.

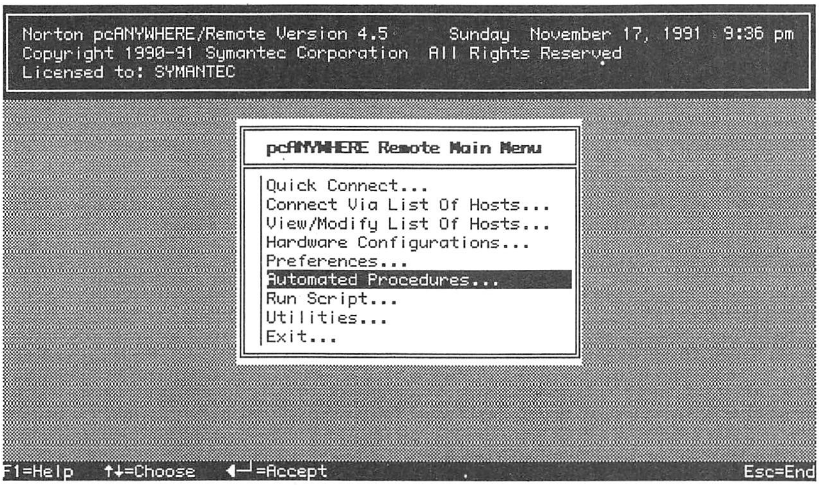


```
Norton pcANYWHERE/Remote Version 4.5   Saturday  September 21, 1991   2:56 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed                                                        00000000

                      Receive Translation Table

      0  1  2  3  4  5  6  7  8  9  A  B  C  D  E  F
  00  00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
  10  10 11 12 13 14 15 16 17 18 19 1A 1B 1C 1D 1E 1F
  20  20 21 22 23 24 25 26 27 28 29 2A 2B 2C 2D 2E 2F
  30  30 31 32 33 34 35 36 37 38 39 3A 3B 3C 3D 3E 3F
  40  40 41 42 43 44 45 46 47 48 49 4A 4B 4C 4D 4E 4F   s
  50  50 51 52 53 54 55 56 57 58 59 5A 5B 5C 5D 5E 5F
  60  60 61 62 63 64 65 66 67 68 69 6A 6B 6C 6D 6E 6F
  70  70 71 72 73 74 75 76 77 78 79 7A 7B 7C 7D 7E 7F
  80  80 81 82 83 84 85 86 87 88 89 8A 8B 8C 8D 8E 8F
  90  90 91 92 93 94 95 96 97 98 99 9A 9B 9C 9D 9E 9F
  A0  A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 AA AB AC AD AE AF
  B0  B0 B1 B2 B3 B4 B5 B6 B7 B8 B9 BA BB BC BD BE BF
  C0  C0 C1 C2 C3 C4 C5 C6 C7 C8 C9 CA CB CC CD CE CF
  D0  D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 DA DB DC DD DE DF
  E0  E0 E1 E2 E3 E4 E5 E6 E7 E8 E9 EA EB EC ED EE EF
  F0  F0 F1 F2 F3 F4 F5 F6 F7 F8 F9 FA FB FC FD FE FF

F1=Help                                                          Esc=End
```

You can change any field with a new hex value, or clear a field to indicate that the code should be filtered (ignored). For received codes, the receive translation table indicates what codes should be displayed when the various ASCII codes are received. For example, if the entry in row 40, column 1 in the Receive Translation Table (representing a received 'A') is set to 42, each received 'A' will be converted to a 'B' (hex 42). Leaving a table entry blank indicates that the code should be ignored.

The transmit translation works in reverse. It indicates what codes will be transmitted instead of the codes normally sent. For example, if you set the code in column 60 row 4 ('d') to 44 ('D'), when you press the lowercase 'd' key on your keyboard, an uppercase 'D' will be transmitted.

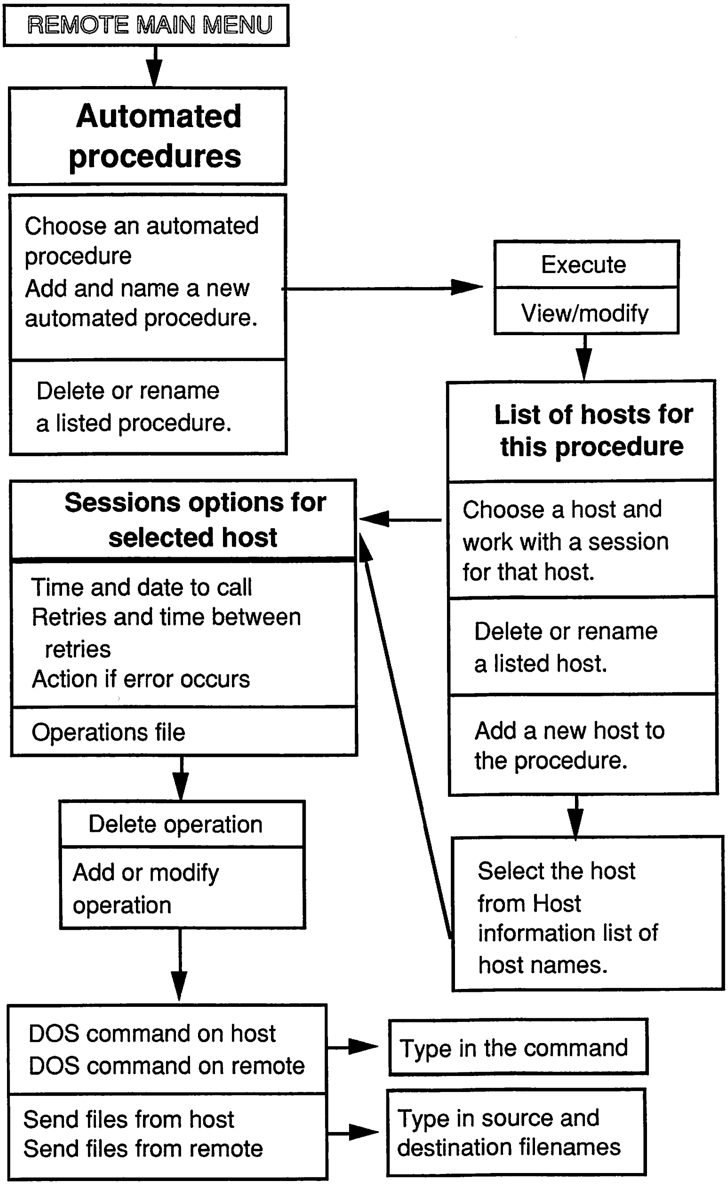
Automated Procedures



```
Norton pcANYWHERE/Remote Version 4.5      Sunday  November 17, 1991  9:36 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC
```

This option allows you to create and execute procedures for calling specific hosts and then executing predefined operations, which can include file transfers in either direction or DOS commands to be executed on either side. This feature is useful for automating repeated activities which can be invoked at predefined times with no operator present at either end.

Each procedure is made up of one or most *host sessions.* A session begins with a call to a host, and includes one or more *operations*. Operations are defined in *command files*. Norton pcANYWHERE/Remote menus guide you to enter one or more operations into a command file. An operation may be a file transfer, or a series of commands entered at the DOS prompt. You specify whether the host or the remote issues the command or sends the file. The schematic following illustrates how you develop an automated procedure.


REMOTE MAIN MENU
Automated procedures
Choose an automated procedure
Add and name a new automated procedure.
Delete or rename a listed procedure.
Execute
View/modify
List of hosts for this procedure
Choose a host and work with a session for that host.
Delete or rename a listed host.
Add a new host to the procedure.
Select the host from Host information list of host names.
Sessions options for selected host
Time and date to call
Retries and time between retries
Action if error occurs
Operations file
Delete operation
Add or modify operation
DOS command on host
DOS command on remote
Send files from host
Send files from remote
Type in the command
Type in source and destination filenames

Structure of automated procedures

To automate procedures, you must:

- Make sure that the host or hosts will be waiting for a call. You have two choices for setting up a host to be called:

    1. Run AWHOST and select *Wait For A Call* from the *Begin Host Operation* menu. The caller information entry which will be activated by the remote caller (running the automated procedure) must have the *Command to execute* field set to AWSEND. (You can also put AWHOST in this mode with a DOS command line. See the section on pcANYWHERE Command Lines in Chapter 7, Sessions.)

    2. Leave the host in any mode that will accept an incoming call with background file transfer capability enabled. In this case, however, your procedure will treat any attempt to execute a host DOS command as a error condition.

- Use host entries that you have included under *View/Modify List of Hosts.*
- Execute the desired automated procedure before leaving the remote computer unattended.

Note

The host can call the remote system back so that the phone charges for the session are charged to the host number. See Chapter 5, Norton pcANYWHERE/Host, and read the section **Caller Information Fields.**

If you are planning a complete automated procedure, with operations to be performed in the absence of an operator, the host entry for the target host information entry on the remote computer must include all necessary information— since no one will be present to answer Norton pcANYWHERE/Remote prompts. Be sure to include the password, the host computer name, the host telephone number, and any other fields that may be necessary for reaching the target host.

When you select *Automated Procedures* from the Norton pcANYWHERE/Remote Main Menu, a list of the current defined procedures (if there are any) is displayed. As with other Norton pcANYWHERE/Remote operations, use the **<Ins>** key to add a new procedure, **<F3>** to rename a selected procedure and the **<Del>** key to delete a selected procedure.

Upon selection of the *Automated Procedures* option from the Remote Main Menu, you are presented with a list of Procedures to choose from. Selecting a Procedure then gives you two options:

Execute The Procedure

View/Modify The Procedure

If you select *View/Modify The Procedure*, then you are asked to select the host to which the procedure will apply. This brings up *Session Options for: {ANYWHERE host}* allowing you to view/modify the procedure for that host.

You can also specify what to do when a file about to be received already exists on the destination machine:

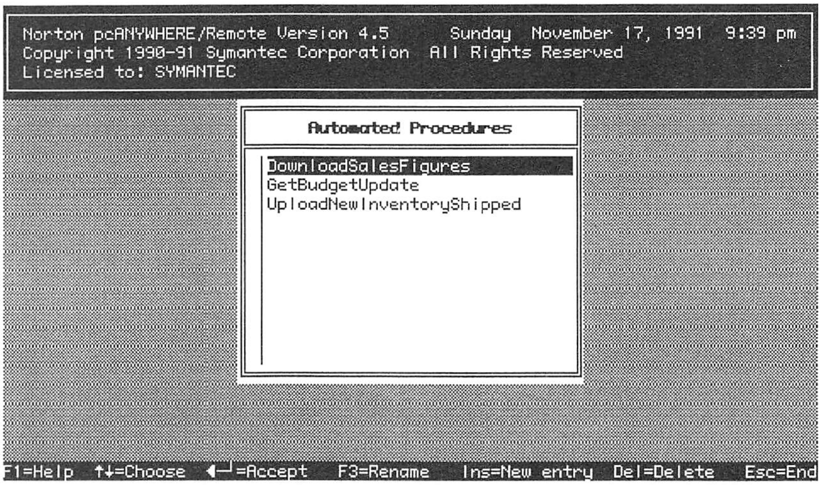
File transfer overwrites

Always Overwrite Duplicate Files

Never Overwrite Duplicate Files

Overwrite Older Files Only

Working With Procedures



Norton pcANYWHERE/Remote Version 4.5 Sunday November 17, 1991 9:39 pm
Copyright 1990-91 Symantec Corporation All Rights Reserved
Licensed to: SYMANTEC

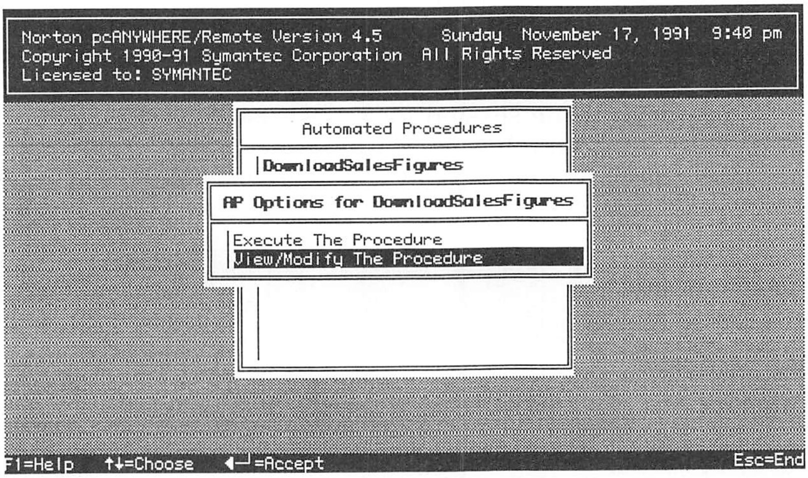
Automated Procedures

DownloadSalesFigures
GetBudgetUpdate
UploadNewInventoryShipped

F1=Help ↑↓=Choose ◄┘=Accept F3=Rename Ins=New entry Del=Delete Esc=End

Once you have highlighted an existing procedure, or named a new procedure, press ↵ to work with it. To carry out the procedure, select *Execute The Procedure* and press ↵; Norton pcANYWHERE/Remote will carry out the specified procedure. To edit or create a procedure, select *View/Modify The Procedure.*

PROCEDURE SESSIONS

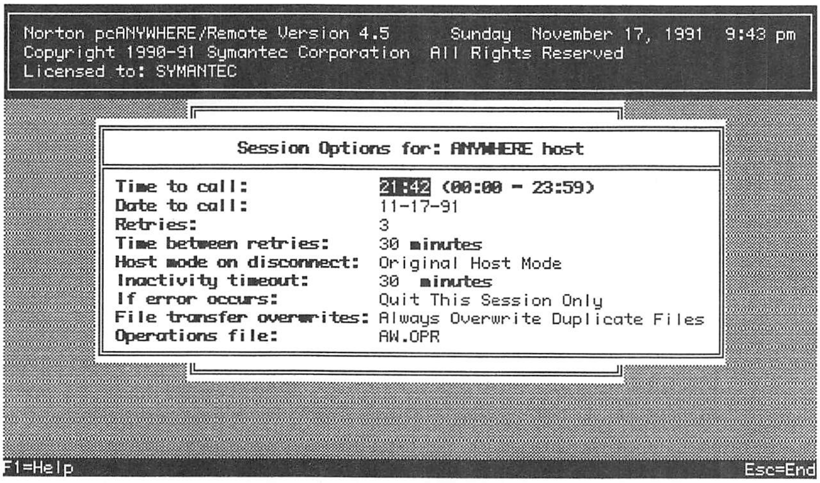


```
Norton pcANYWHERE/Remote Version 4.5      Sunday  November 17, 1991  9:40 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC
```

If you have chosen to view/modify a procedure, a list of host names appears on the screen. If you are creating a new procedure, this list is blank. For each host name, you fill out a session form, listing some parameters for the call, including the name of the file containing the operations.

To add a host session to a procedure, press the **<Ins>** key to choose a host. Norton pcANYWHERE/Remote displays the same list that is available from the Main Menu *View/Modify List of Hosts* option. Choose an existing host, or add a new one. Although you can create a new host information entry from this screen, you will not be able to modify existing host entries.

To work with the session for a host listed on the *Hosts to call* screen, highlight its name and press ↵. Norton pcANYWHERE/Remote displays the session options form for the selected session.



```
Norton pcANYWHERE/Remote Version 4.5     Sunday  November 17, 1991  9:43 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC

                  Session Options for: ANYWHERE host

 Time to call:                 21:42 (00:00 - 23:59)
 Date to call:                 11-17-91
 Retries:                      3
 Time between retries:         30 minutes
 Host mode on disconnect:      Original Host Mode
 Inactivity timeout:           30  minutes
 If error occurs:              Quit This Session Only
 File transfer overwrites:     Always Overwrite Duplicate Files
 Operations file:              AW.OPR

F1=Help                                                              Esc=End
```

If you are creating a new set of session options, change the current or default settings displayed.

Time to call

Default: Current system time

When you tell Norton pcANYWHERE/Remote to execute an automated procedure, it will wait until the time noted here (on the date specified in the following field) before it begins the procedure.

Enter a time here, using standard 24-hour clock notation. Leaving the time blank will insert "NOW" which causes this session to be started immediately. Type in the hour and then use the ⇒ key to type in the minutes. When you have finished press ↵. Press **<Esc>** to leave the time form.

> ***Tip***
> The first time you create a procedure and its host sessions, you may wish to specify times and dates that will allow you perform a dry run test of the procedure. This way you can be sure all the operational steps and sessions are correctly entered, and that the host and remote computers are set up properly.

> ***Tip***
> If you want to set up a procedure that will always execute host sessions in a particular order, but not necessarily on a particular date and time, set up all your host sessions with dates and times that have already passed. Then, invoke AWREMOTE with the -p=a switch to force all sessions to be done.

Date to call

Default: Current system date

Enter the date to call, using the same steps you used in the field above. Follow the form MM-DD-YY. If you leave the date blank, "EVERYDAY" is inserted.

Retries

Default: 3

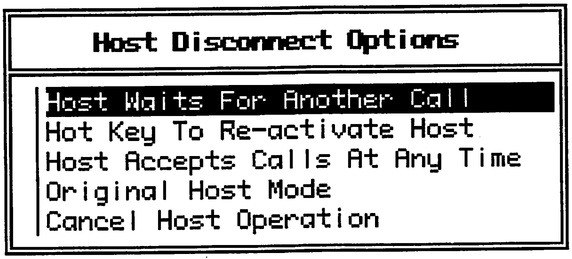
This field tells Norton pcANYWHERE/Remote how many additional times it should try dialing the host number in the event that it is busy when the call is made. Enter any number up to 99.

Time between retries

Default: 10 min

Enter the number of minutes that Norton pcANYWHERE/Remote should wait before retrying a call to the host. You can enter any number up to 99.

Host mode on disconnect



Host Disconnect Options

Host Waits For Another Call
Hot Key To Re-activate Host
Host Accepts Calls At Any Time
Original Host Mode
Cancel Host Operation

Select a host operating mode. The host will be left in this mode after the session is over. Select from:

Host Waits for Another Call

The host is left waiting with Norton pcANYWHERE/Host in the foreground, waiting for another call. No host activities can be performed until there is a connection. **IMPORTANT! Use this choice if you need to have the host ready for another automated procedure.**

Hot-key to Re-activate Host

Norton pcANYWHERE/Host remains resident, but a session cannot begin until a host user presses the host hot key.

Host Accepts Calls At Any Time

Norton pcANYWHERE/Host remains resident, and a session is initiated by an incoming call.

Original Host Mode

Norton pcANYWHERE/Host will return to whatever operating mode was active prior to the current automated procedure call.

Cancel Host Operation

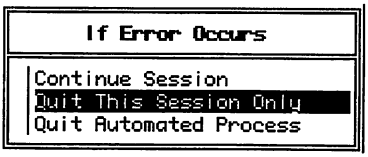
Norton pcANYWHERE/Host is removed from memory and the host is deactivated. You may not be able to use this mode if the host has other memory-resident programs loaded.

Inactivity timeout

Default: 0 minutes

Use this field to safeguard against a situation where the host program "locks up," leaving the connection intact. If you specify an inactivity timeout period, the connection will be ended when that time period elapses with no activity on the line. The default value of 0 minutes is an unlimited timeout period.

If error occurs



Default: Quit This Session Only

This field allows you to decide what Norton pcANYWHERE/Remote will do in the event of an error during this automated remote computing session with the current host. Examples of errors include a failed file transfer, or an expired inactivity timeout period. Norton pcANYWHERE/Remote presents three choices for you to select from.

Continue Session

If you choose this option, Norton pcANYWHERE/Remote ignores any errors and continues with the session, executing any additional operations and further sessions that are still to be completed for the automated procedure.

Quit Session

If this is your selection, Norton pcANYWHERE/Remote quits this session upon confronting an error. Norton pcANYWHERE/Remote will, however, continue to execute any other sessions defined for the current procedure.

Quit Automated Process

If you use this option, Norton pcANYWHERE/Remote will quit the procedure upon encountering an error. No further sessions are executed.

Operations file

Default: AW.OPR

This field displays the filename of the file where a list of operations are stored. Operation files can be placed in the directory of your choice.

Press ↵ to work with this file.You can select the operations file name using Norton pcANYWHERE/Remote's standard method for choosing the directory and filename of a user defined data file.

> ***Tip***
> Because operations are stored in files, you can apply the same operations to different host sessions.

Once you select the file, you will be presented with the list of operations. If there are no operations defined in this file, the list is blank.

When you choose to add or modify an operation, Norton pcANYWHERE/Remote displays the *Operation Types* described below.

Note

Since the list of operations describes the exact sequence of events to be executed, it is important to add new entries in the proper position. To do this, move the highlight bar to the entry BEFORE which the new operation step will be inserted. When you need to add a new step at the end of the operations list, move the highlight bar to the blank line following the last defined step before pressing the **<Ins>** key.

Execute DOS command on host

If you wish the host computer to execute a command from the DOS prompt, select this option. You can use this option to perform such DOS tasks as changing directories and copying files; or, you can execute a DOS batch file and perform numerous other activities.

When you select this option, Norton pcANYWHERE/Remote displays the operation type and one fill-in field:

Command line to execute

Type in the exact DOS command line to be executed on the host computer. You may enter up to 40 characters. (Norton pcANYWHERE/Remote will automatically append the Enter key stroke when the command line is passed to the host or remote DOS). Press **<Esc>** when the entry is complete. Norton pcANYWHERE/Remote prompts *Add new command?* Press ↵ to add the command, or highlight *No* and press ↵ if you decide not to add it. You are returned to the list of operations for this host session. Notice that the new or modified operation reflects your entries here.

Execute command on remote

Use this option if the DOS command is to be executed on the remote computer.

Note

Since AWREMOTE will be in memory during the execution of this DOS command, there may not be that much memory available for running other programs on the remote during an automatic procedure execution.

Send file(s) from host to remote

When you select this option, Norton pcANYWHERE/Remote displays a form with two fields:

Source name

Enter the full path name of the file to be transferred from the host computer. Be sure to include the correct drive and directory names, using the form:

```
drivename:\subdirectoryname\filename
```

You can use the DOS wildcards (* and ?) to specify a group of files, as in this example:

```
c:\data\*.dat
```

Destination name

Use this field to fill in the drive and directory location where the transferred files will be placed on the remote system.

Do not place a backslash (\) after the last subdirectory name. Furthermore, unless you have specified a non-ambiguous file name as the source file (no wildcards), then the destination name must be a directory only. When you send multiple files, the files will have the same name on the receiving system that they had on the originating computer.

Send file(s) from remote to host

Follow the instructions for the option above. In this case, however, the Source name applies to files from the remote system, and the destination name applies to files on the host system.

> ***Tip***
> If you need to change the order of your steps: You can move a single operation step by deleting that step, moving the highlight bar to the new location where that step should be placed, and pressing the **<Ins>** key. Norton pcANYWHERE/Remote will ask you if the deleted item should be placed in the new spot. If you respond No, Norton pcANYWHERE/Remote will assume that you just want to insert a new step.

Tip

If you don't have enough room to enter the full path names for the source or destination fields, you can use the execute DOS command on the appropriate PC, issuing a CD (change directory) command. Your source and/or destination path can assume that the current directory on a particular drive has been set. For example, if your destination path is C:, that means the current directory on drive C.

Run Script

The *Run Script...* menu item allows you to directly execute a script file. This eliminates the need to go into terminal mode to run a script. It also makes it possible to write scripts that will run without having to initialize a comm port. When selected, you will be prompted using the standard file selection dialog to select the script to run.

7

Sessions

This chapter shows you how to use Norton pcANYWHERE's on-line features during a remote computing session. It covers remote and host options during the session, the three methods of file transfer, and finally terminal mode options for the remote during a session with a non-ANYWHERE host.

REMOTE ON-LINE OPTIONS

Most of the capabilities we discuss here are only available to the remote user, because the remote user is the one who controls the host system after the session begins. The remote user accesses one of two menus:

- **Session Options.** This menu is available for ANYWHERE sessions, where Norton pcANYWHERE is running on both computers. Use the Session Options menu to end the session, enter chat mode, transfer files, set print options, go to DOS, reboot the host computer, record the session, save a screen, refresh the screen, switch from voice to data, and more. Remote options may be limited by host-specified parameters.

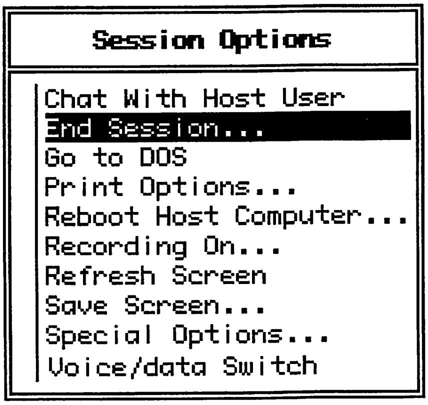
- **Terminal Options.** This menu is available during a session with a non-ANYWHERE host, such as an on-line service. Use the Terminal Options menu to issue a break, clear the screen, end the session, transfer files, go to DOS, look at received data in monitor mode, record the session, save a screen, or change some of the configuration settings for the session.

Press the remote hot key to display a Norton pcANYWHERE/Remote on-line options menu.

HOST ON-LINE OPTIONS

Generally the remote user employs Norton pcANYWHERE options during a session. However, if the host keyboard is active, the host user can also perform some Norton pcANYWHERE activities.

Remote Session Options



To use these session options, you must be on line with an ANYWHERE host. Press the remote hot key (usually **<Ctrl-R-Shift>**) to bring up the Session Options menu. While you are working with this menu, the host's screen displays the message *Remote user is busy. Please wait.*

Some of the options and sub-options described here are only available if the host user has enabled them. In some cases, an option's functionality may be limited by the host. We have designated these choices as *Host specified.*

CHAT WITH HOST USER

When you select *Chat With Host User,* Norton pcANYWHERE/Remote displays two windows on your screen, the Host and Remote dialogue windows.

The host user sees the same windows. To move the chat mode window to the bottom half of the screen, press **<PgDn>**. To return the window to the top of the screen, press **<PgUp>**.

To chat with the host user, just type. The text appears in the Remote dialogue portion of the screen. The host user may type into the Host dialogue portion of the window.

When you have finished your conversation, either the remote or the host can press the **<Esc>** key to terminate the conversation.

END SESSION

Host specified

Select *End Session* to disconnect from the host. After disconnecting, you are returned to the Remote Main Menu.

Disconnect options vary, depending upon:

- whether you are allowed to change the host mode.
- whether you or the host is making a LAN connection.

See Chapter 6, Norton pcANYWHERE/Remote, for a description of the End Session options.

FILE TRANSFER

Host specified

Choose this option to transfer files from the remote to the host system or vice versa. The file transfer program is convenient and simple to use. File transfers can also be performed directly from the DOS prompt. File transfers are covered later in this chapter in the **File Transfer** section.

GO TO DOS

This option allows you to access your own remote computer's DOS, while Norton pcANYWHERE/Remote remains on-line and the host system is still engaged. The host screen displays the message, *Remote user is busy. Please wait...* Use *Go to DOS* when you need to check something on your own system, or perform some activity there. The remote computing session is suspended until you type the DOS `exit` command.

PRINT OPTIONS

Host specified (initial setting only)

This option controls the destination of any printing during a session. The remote user may select which machine (Host or Remote, or both) will be used for printing.

Discard printer output

If this option is chosen, any material that is sent to a printer during the session is not printed or saved.

Print to Host only

With this option selected, any printed material is output on the host system's active printer.

Print to Host and Remote

If this option is chosen, the printed material is output on both systems. The remote user can decide whether to print on a printer, or to store the data in a disk file.

Print to Remote only

If you choose this option, the remote system will receive all printed data. You can decide whether it will be output on a printer or saved in a disk file. When you make this selection, Norton pcANYWHERE/Remote displays the same list of remote print device options as appears under Remote Preferences. See Chapter 6.

REBOOT HOST COMPUTER

Host specified

Use this option when you need to restart the host computer. This may be necessary, for example, when the host freezes up while performing some activity. Use care when selecting this option, since it will halt Norton pcANYWHERE/Host operation on the host system, as well as stopping any application that was running on that machine.

> ***Advanced Tip***
> You can set up Norton pcANYWHERE/Host to load automatically when the host system reboots. Follow the directions in the section below entitled **Norton pcANYWHERE Command Lines** to add the appropriate instructions to the host's AUTOEXEC.BAT file.

RECORDING ON/OFF

Norton pcANYWHERE/Remote allows you to record your remote computing sessions in a file for later reference. From this menu, your option is to turn the recording feature on or off during a session. For more information on this feature, see *Recording* in the section **Host Information Fields** in Chapter 6, Norton pcANYWHERE/Remote.

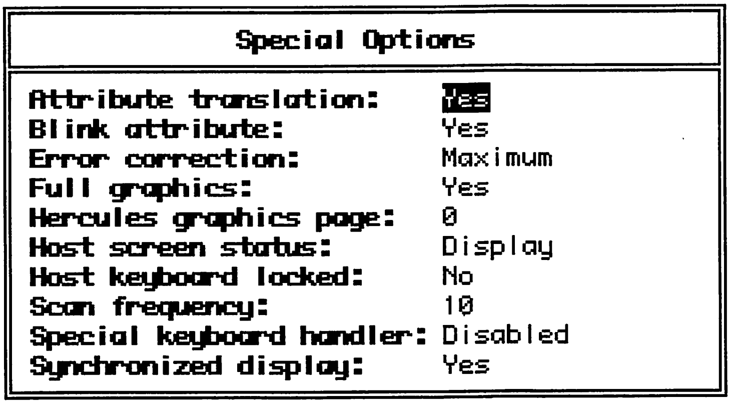
REFRESH SCREEN

Use this option when you want to repaint the host screen's image on the remote system. This may be necessary when maximum error correction (set from Remote Preferences and from *Special Options* in this menu) is not being used during the session, and there are incorrect characters reaching the screen.

SAVE SCREEN

The *Recording* option (Chapter 6) works like a movie camera to save the complete remote computing session, as long as it is turned on. The Save Screen option simply takes a still snapshot of the current screen. As it appears on this menu, it gives you the opportunity to save a screen during a session.

SPECIAL OPTIONS



```
                 Special Options

Attribute translation:      Yes
Blink attribute:            Yes
Error correction:           Maximum
Full graphics:              Yes
Hercules graphics page:     0
Host screen status:         Display
Host keyboard locked:       No
Scan frequency:             10
Special keyboard handler:   Disabled
Synchronized display:       Yes
```

This selection gives you access to a number of additional options that help control the way the host and remote systems work together. The first three options are available from the Remote Main Menu Preferences, but you can change them here. They are often used for troubleshooting during your session.

Attribute translation

Default: Yes

Change this option to *No* only if incorrect characters appear on a monitor with Hercules adapter.

Blink attribute

Default: Yes

Blinking is a screen display attribute that causes a character to flash on and off on the screen. Only change the default setting to *No* if you unexpectedly experience this kind of blinking during a session.

Error correction

Default: Maximum

This option applies to a noisy phone connection which can cause incorrect characters to appear on the remote screen during a session. If you use error correction, Norton pcANYWHERE retransmits incorrect characters automatically so that you never see them. If you eliminate error correction, you can correct them during the session. Error correction does slow down performance slightly. Here are your options for error correction:

Maximum

Use this option when data accuracy is critical. It eliminates errors caused by phone noise by verifying data as it is received and retransmitting data when an error is detected.

Keystrokes only

This option screens out any errors in real-time keystrokes that are received.

None

This option provides the fastest performance, but does not prevent incorrect characters from reaching the remote computer. You can use this option when you have error correcting modems.

Hercules graphics page

Default: 0

Experiment with this option if you have a Hercules graphics adapter and the screen display is not correct. This option switches from one Hercules graphics page to another.

Host screen status

Default: Display
Host specified

Use this option to suppress the host computer's screen display. This feature is appropriate for unattended host operation when security is paramount.

Display

This option causes the host screen displays normally.

Blank

This option causes the host screen to remain blank during your session. This prevents casual observers from watching activities on the host machine.

Scan frequency

Default: 10
Advanced feature

Do not use this option unless screen display operation is not smooth. This field controls the *scan delay time*, which is the frequency with which Norton pcANYWHERE/Host checks the host screen to see whether anything on it has changed. The value here is expressed in units of 55 milliseconds (0.055 seconds). The default value of 10 is equal to about half a second. You can type in any number up to 99.

Special keyboard handler

Default: Disabled
Host specified

Only use this option if keystrokes from the remote keyboard do not seem to be accepted by the host. Norton pcANYWHERE/Host has a special keyboard handler that is needed when the host runs certain software programs. These programs communicate directly with the host's keyboard hardware, so that Norton pcANYWHERE/Host cannot translate keystrokes from the remote system unless the special keyboard is used. Experiment with the levels to see which works best for you. Try *Level 1* first, and then try other levels only if necessary. Each level causes the host to do more work, slowing down operations.

Synchronized display

Default: Yes

When a remote user is running a software application on the host computer, that application may perform frequent screen updates (while scrolling through text, for example, in a word processing program). If this option is set to *Yes*, Norton pcANYWHERE/Host synchronizes the host computer with the remote computer, so that each screen update must be fully completed and displayed on the remote before the application can proceed, thus slowing down the application. When Synchronized display is not used, Norton pcANYWHERE/Host will not fully update the remote screen until the host screen "settles down" and no more changes are detected.

VOICE/DATA SWITCH

This option requires that a telephone is plugged into the modem. Use this selection to switch from a remote computing session to a voice conversation over the phone line. Norton pcANYWHERE prompts you through this activity.

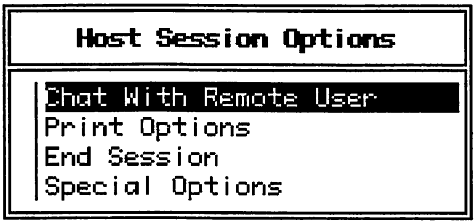
Note

Voice/data switching is a delicate operation, and some modems have difficulty reestablishing a connection. For best results, don't slam the phone receivers back on the hook after the modems reconnect. This usually breaks the connection!

The following special keystroke combinations are available to the remote user during a session:

Special Remote User Hot Keys	
Refresh the screen	**<Ctrl><Alt><R>**
Simulate the DESQView hot key if you are running DESQView remotely	**<Ctrl><Alt><D>**
Allows remote user with a 25 line screen to scroll a host screen of 43 or 50 lines	**<Ctrl><Alt>** **<⇑>** or **<⇓>**
Bring up the Norton pcANYWHERE *On-line Menu* from a terminal with a scan code keyboard	**<Ctrl><Alt><M>**

Host Session Options



If the host keyboard is enabled, the host user may perform certain operations during the remote computing session. To display the host on-line menu, press the hot key, **<Alt-R-Shift>**. The above screen appears. The remote user sees the message *Host user is busy. Please wait.*

CHAT WITH REMOTE USER

When you select *Chat With Remote User,* Norton pcANYWHERE displays the Host and Remote dialogue windows for both the host and remote users.

To move the window to the bottom half of the screen, press **<PgDn>.** To return the window to the top of the screen, press **<PgUp>**.

To chat with the remote user, just type. The text appears in the Host dialogue portion of the screen. The remote user may type into the Remote dialogue portion of the window.

When the conversation is finished, either the host or remote user may press the **<Esc>** key to terminate chat mode.

PRINT OPTIONS

Use this option to control the destination of any printing that takes place during a session. You may change the decision you made earlier from a caller entry screen. Your choices are: discard the output, print to the host system, print to the remote system, or print to both systems. These options are defined earlier in this chapter in Remote Session Options/Print Option.

END SESSION

When you select *End session* from the hot key menu, Norton pcANYWHERE/Host displays a list of the End Session options including wait for another call, hot key activates, incoming call activates and cancel Norton pcANYWHERE. These options are defined in the section **Ending the Session** in Chapter 6, Norton pcANYWHERE/Remote.

RUN SCRIPT

Allows you to run a script file. The script will automatically be preprocessed if not already done. (See Chapter 8, Norton pcANYWHERE Script Language, for more information on creating and running script files.)

SPECIAL OPTIONS

There are three options the host can use to control some parameters for the current session. These options are all on/off toggles. To change a current setting, highlight the desired option and press ↵.

Eliminate Snow

Some color displays may experience snow on the screen, just like the snow or static on a TV set. This option allows you to control snow on the host display.

Remote Keyboard

Use this option to enable or disable the remote keyboard. If the remote keyboard is disabled, the remote user can only observe operations on the host system.

Remote Screen

Use this option to blank the remote screen, or to turn the display on. Blank the remote screen as a drastic security measure, when you don't want to end host operation, but must disable an unauthorized user.

Graphics translation favor

The options for this item are *Resolution* and *Color.*

Remote mouse

There are four modes of operation that direct the behavior of Norton pcANYWHERE's remote mouse support. The default mode is set by the using the Mouse... menu item from the remote *Preferences* menu. The operating mode can also be changed during a session from the Remote Session Options menu accessed by using the remote hot key.

Note

In all cases where a mouse cursor is displayed on the host screen, it will also be seen on the remote screen. In addition, when used under Windows 3.x, all the enabled options will operate like the "Enabled - track always, one mouse" option, except that the mouse will move very smoothly.

The remote mouse operating modes are:

Disabled

Use of a remote mouse not enabled. That is to say, moving the remote's mouse device will have no effect on the host.

Enabled - track always

The remote mouse cursor will also appear on the remote screen. When you move the remote mouse, you will see the host's mouse cursor catching up and eventually resting in the same location as the remote mouse cursor. This mode of operation is suitable for fast modem connections or at network speeds.

Enabled - track always, one mouse

Only the host mouse cursor is displayed. Mouse cursor movements may not be as smooth with this option since it takes a while in graphics mode to clear the old cursor and redraw it at a new location. It is really only suitable for high speed serial or network connections. Its advantage is that you only see one mouse cursor.

Enabled - track when button pressed

Both the location of the remote and the host mouse are displayed. The remote mouse movement is shown, but the movement of the host mouse is not shown until the remote's mouse button is pressed and its location is updated and appears in the correct place.

Suitable for situations where it is desirable to send the least amount of data, such as with slow modem speeds. With this option, the host does not see the mouse movement until the remote user presses a mouse button.

Norton pcANYWHERE Command Lines

Note

This section covers command line arguments. It is for *advanced users only*; most readers need not be concerned. There are other Norton pcANYWHERE features designed to help you automate operations. See the section entitled **Automated Procedures** in Chapter 6. In Chapter 5, see the **Caller Information Fields** section and review the information under the heading **Command to execute.**

You can load Norton pcANYWHERE/Host at start-up time from the DOS prompt, without going through the usual user interface. You can store command line arguments in batch files to be invoked automatically from AUTOEXEC.BAT.

Starting AWHOST from a DOS command lines can be used to automate host operation for reasons such as the following:

- To make sure that the host is restarted through use of the AUTOEXEC.BAT when the host preference *Reboot on disconnect* is in effect.
- To make sure that the host is restarted through use of the AUTOEXEC.BAT when a remote user reboots the host system.
- To create batch files tailored for individual host users, making possible for those users to have Norton pcANYWHERE/Host loaded automatically from menuing systems.

They can also be used for AWREMOTE functions:

- for remote operation, to start an automated procedure.
- for general operation, to play back saved sessions or screens.

COMMAND LINE ARGUMENTS

Command line arguments can be grouped to perform complex activities automatically. Use a space to separate arguments, and complete the command line with ↵. Command line arguments consist of:

- a dash or hyphen (-)
- a command line option letter(described below)
- an equals sign (=)
- a value (described below)

The command line begins with the command to start Norton pcANYWHERE:

`AWHOST[space]` or `AWREMOTE[space]`

Add more arguments to perform further activities, such as:

```
-m=w
```

to use the host mode where Norton pcANYWHERE waits for a call. The sample complete command line is

```
AWHOST -m=w↵
```

This command line circumvents the user interface and starts Norton pcANYWHERE/Host, leaving it waiting for a call. Other examples are included at the end of this section.

The host computer must be ready, with the correct active configuration in place (Norton pcANYWHERE/Host remembers the last selected active configuration), when a command line is invoked.

The *Default phone number* field in Norton pcANYWHERE/Host *Preferences* is used as the phone number for any host dialing operation.

Command Line Options

Each command line option is indicated by a hyphen followed by a letter. The available options are:

-m set mode for operation
  a=resident and answer any incoming call (host only)
  d=dial (host or remote)
  h=hot key to activate (host only)
  p=invoke automatic procedure (remote only)
  r=recorded session (playback only)
  s=saved screens (playback only)
  w=wait for incoming call (host or remote)

-n set automated procedure name to invoke (remote only)
  set playback filename (playback only)
-o to set playback operation
  p=playback
-p set automated procedure option
  a=invoke all sessions even if start time passed
-s set playback speed

The AWREMOTE option "-M=S" can also be used to specify that a script be executed. A "-N=script_name" is required.

Example Command Lines

All of the command lines examples below end with ↵.

Command Line	**Description**
awhost -m=d	Start host operation and call a remote.
awhost -m=a	Start host operation and accept calls at any time.
awhost -m=w	Start host operation and wait for a call.
awhost -m=h	Start host operation and let hot-key activate host operation.
awremote -m=p -n=procedure	Start an automatic procedure where "procedure" is the name of the procedure.
awremote -o=p -m=s -s=5 -n=aw	Play back a saved screen, where the speed is "5" and the recording filename is "aw.scn".
awremote -o=p -m=r -s=5 -n=aw	Play back a recorded session, where the speed is "5" and the recording filename is "aw.rcd".

File Transfer

Either the host or remote user may transfer files during a Norton pcANYWHERE remote computing session. However, the fully menu-driven file transfers are controlled exclusively by the remote user. There are three ways to do a file transfer operation:

- Full-menu file transfer from the Remote Session Options menu. This program is available only to the remote user, and is controlled by the remote user. It is performed in the background, without the host user's knowledge. It does not allow directories to be selected, so they cannot be transferred or deleted. This type of file transfer can occur only if the host user has permitted it using the Host Preference *Allow pop-up file transfer.*

- File transfer using the AWSEND program from the DOS prompt. This is conducted by the remote user only, with the host user's knowledge. AWSEND invoked with an appropriate command line is the only file transfer method that can be host user initiated.

- Abbreviated menu file transfer from the Terminal Options session menu. This method is available to a remote user who is connected to a non-ANYWHERE host. It is described in the section, **Terminal Options**.

BACKGROUND FILE TRANSFER

"Background" file transfers are file transfers that take place during a remote access session, but that go on while the host user can go about his business running application programs. The remote user will control the entire file transfer operation. During background transfers, the remote PC will be detached from the host PC's screen and keyboard, being dedicated only to the file transfer operation.

When to use background file transfer:

- When you want to transfer files and the host user needs no knowledge of what files are being exchanged.
- When the AWSEND program is not available on the host machine, but background transfers are enabled.
- When file transfers must take place while the host user is in the middle of other applications.

When not to use background file transfer:

- When it is important for the host user, for possible security reasons, to know what actions are being taken by the remote user.
- When the additional 18K of host memory needed by background file transfer cannot be spared.
- When the extra benefit of the enhanced data compression available in the AWSEND program would be beneficial.

To invoke background file transfer:

1. Press the remote hot key.
2. Select *File Transfer* from the *Session Options* menu.

The section **Using The File Transfer Screen** describes the user interface controlling menu driven background file transfer.

FILE TRANSFER WITH AWSEND

AWSEND is initiated from the host's DOS prompt during an ANYWHERE session.

Use AWSEND when to use; when:

- The host user does not allow background file transfer, and so it is not available from the Session Options menu.
- The remote user wishes to take advantage of enhanced data compression.
- You are the host user and you need to transfer files (see AWSEND Command Lines, below).
- You are using a terminal emulation program to control a remote computing session, and you wish to transfer files using XMODEM protocol.

From the DOS prompt, start AWSEND by typing:

```
AWSEND ↵
```

When invoked with the above command line, AWSEND presents the same user interface as seen in background file transfer. The only difference is that when AWSEND is used, the host user will see a status box describing all the activity taking place during the file transfer session. The next section, **Using The File Transfer Screen** describes the user interface controlling menu driven AWSEND file transfers.

Selecting A Protocol For AWSEND

When a caller using a terminal emulator is controlling a Norton pcANYWHERE host and needs to perform a file transfer, the AWSEND program can be run. If the AWSEND command line is used to specify the file names and direction of transfer, AWSEND will automatically use XMODEM protocol. If the caller wishes to use any of the other supported protocols, AWSEND should be run with no command line parameters. The form displayed will request three fields to be filled in: Protocol, Send from, and Host filename. The options for Protocol are:

XMODEM
XMODEM-CRC
XMODEM-1K
YMODEM (batch)
XMODEM-1K-G
YMODEM-G (batch)
ZMODEM
ASCII

AWSEND Command Lines

You may quick-start AWSEND and bypass the user interface by entering AWSEND from the DOS prompt and specifying the file transfer operation. Use this format:

```
awsend filename to|from host|remote [pathname]
```

where:

`filename` is the file name(s) to be transferred. Wildcards and full path names are accepted.

`to|from` is the word "to" or "from" which tells AWSEND which machine is receiving (to) or sending (from) the files.

`host|remote` is the word "host" or "remote".

`pathname` is the drive and directory where the files will be stored on the destination machine (implies that the word "to" was used in the command line). If this item is left out, files will be stored on the current directory of the receiving machine. The pathname may only include a file name if the source file name has no wildcard characters.

A "-O=x" command line option specifies how existing destination files should be handled. Possible parameters are:

-O=V	Verify before overwriting
-O=A	Always overwrite duplicate files
-O=N	Never overwrite duplicate files
-O=R	Ask for new destination name (rename)
-O=O	Overwrite older files only

Examples:

To send all ".dat" files from the remote's c:\database directory to the host's d:\data directory:

```
awsend c:\database\*.dat to host d:\data
```

To send all files from the current host directory to remote's current directory:

```
awsend *.* from host   or   awsend *.* to remote
```

To send host file INFO.WP to the remote PC, but change the name on the remote to NEWINFO:

```
awsend INFO.WP to remote NEWINFO
```

AWSEND Error Level Values

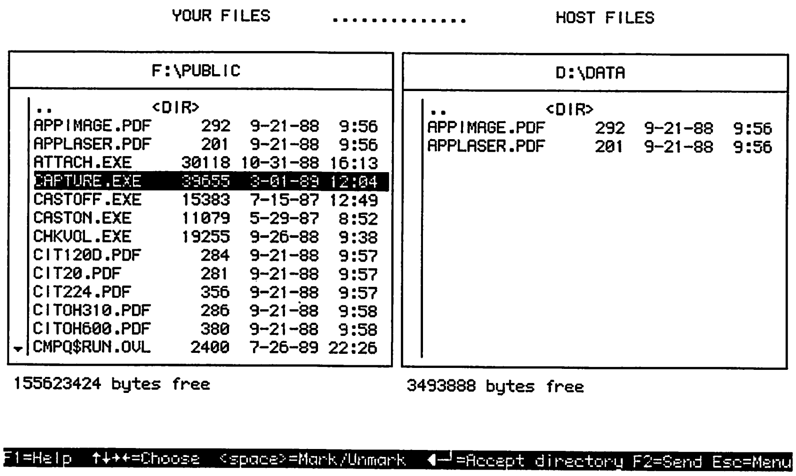
AWSEND now sets the DOS ERRORLEVEL variable according to the result of the last file transfer. This makes it possible for you to create DOS batch files that can transfer files and take appropriate action based on the success or failure reported in the ERRORLEVEL value. Refer to your DOS manual for a description of the use of ERRORLEVEL.

The possible error levels returned from AWSEND are:

Operator Cancel	1
Too many retries	2
Connection lost	3
Timeout	4
Disk read error	5
Remote computer cancelled	6
Disk write error	7
File not found	8
File create error	9

USING THE FILE TRANSFER SCREEN

Whether file transfer during a Norton pcANYWHERE session was brought up from the remote's Session Options menu or from the AWSEND program, the following screen is displayed:



```
            YOUR FILES      ..............          HOST FILES

 F:\PUBLIC                                  D:\DATA

 ..              <DIR>                      ..              <DIR>
 APPIMAGE.PDF      292   9-21-88  9:56      APPIMAGE.PDF      292   9-21-88  9:56
 APPLASER.PDF      201   9-21-88  9:56      APPLASER.PDF      201   9-21-88  9:56
 ATTACH.EXE      30118  10-31-88 16:13
 CAPTURE.EXE     39655   3-01-89 12:04
 CASTOFF.EXE     15383   7-15-87 12:49
 CASTON.EXE      11079   5-29-87  8:52
 CHKVOL.EXE      19255   9-26-88  9:38
 CIT120D.PDF       284   9-21-88  9:57
 CIT20.PDF         281   9-21-88  9:57
 CIT224.PDF        356   9-21-88  9:57
 CITOH310.PDF      286   9-21-88  9:58
 CITOH600.PDF      380   9-21-88  9:58
▾CMPQ$RUN.OVL     2400   7-26-89 22:26

 155623424 bytes free                      3493888 bytes free

F1=Help  ↑↓→←=Choose  <space>=Mark/Unmark  ◄┘=Accept directory F2=Send Esc=Menu
```

The file transfer screen is divided into several sections:

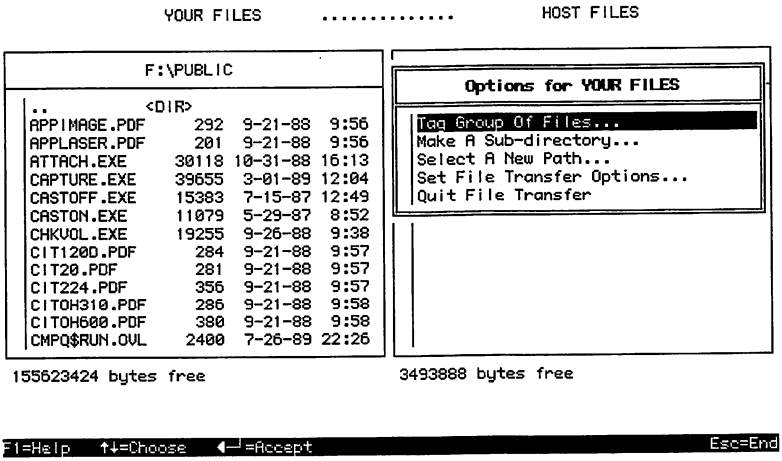
- The *file transfer direction* is indicated by arrows on the top line, between the headings "YOUR FILES" and "HOST FILES". It will show a direction only if you have selected any files to be transferred.
- The *file display area* shows the files located on the remote machine (left box) and the host machine (right box). When first brought up, the lists show files in the current directories of the remote and host.
- The *information area* shows the total available space on each system, along with the number and total size of selected files.
- The *status line* shows available keystrokes.

How To Transfer Files

The table below lists the keystrokes available during a menu-driven file transfer operation:

Change to/from host/remote window	Right/Left arrow keys
Display the File Options menu	Esc
Highlight a file/directory	Up/Down arrow keys
Select a file/directory	Highlight and press ↵
Display files in selected directory	↵
Tag/untag selected file/dir, for transfer	Spacebar
Start transfer of tagged files	F2

Select the ".." directory entry to view the parent directory's entries. If the parent directory is the root directory, the available drive names are displayed for selection.



```
            YOUR FILES      ..............         HOST FILES

            F:\PUBLIC                      Options for YOUR FILES
 ..             <DIR>                     Tag Group Of Files...
 APPIMAGE.PDF     292   9-21-88   9:56    Make A Sub-directory...
 APPLASER.PDF     201   9-21-88   9:56    Select A New Path...
 ATTACH.EXE     30118  10-31-88  16:13    Set File Transfer Options...
 CAPTURE.EXE    39655   3-01-89  12:04    Quit File Transfer
 CASTOFF.EXE    15383   7-15-87  12:49
 CASTON.EXE     11079   5-29-87   8:52
 CHKVOL.EXE     19255   9-26-88   9:38
 CIT120D.PDF      284   9-21-88   9:57
 CIT20.PDF        281   9-21-88   9:57
 CIT224.PDF       356   9-21-88   9:57
 CITOH310.PDF     286   9-21-88   9:58
 CITOH600.PDF     380   9-21-88   9:58
 CMPQ$RUN.OVL    2400   7-26-89  22:26
155623424 bytes free                     3493888 bytes free

F1=Help   ↑↓=Choose   ◄┘=Accept                                Esc=End
```

To transfer files:

- **Tag files and directories to transfer**
  Using the keystrokes described above, select the files and directories you wish to transfer. All *tagged* files and subdirectories must be in the same directory on

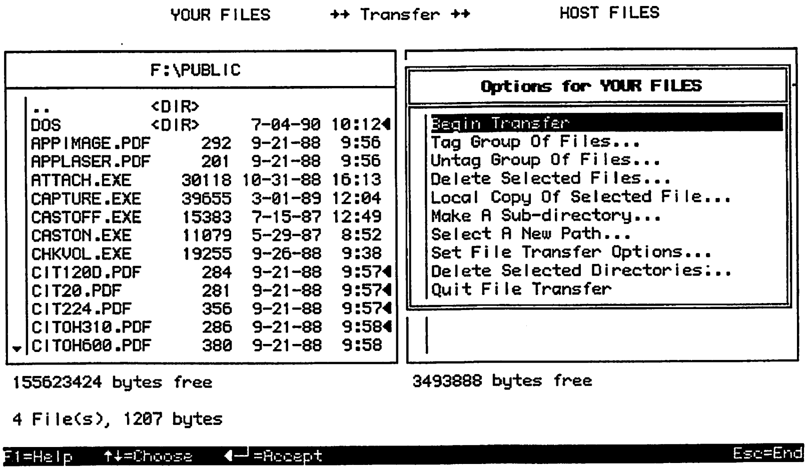
the source machine. The Options menu includes some selections for tagging/untagging groups of files.

- **Select the destination directory**
  Once files are tagged in the YOUR FILES or HOST FILES window, the other window becomes the destination directory where transferred files will be placed. Therefore, you may need to use the keystrokes listed above to make the destination window list the files in the target directory.
- **Set file transfer options**
  Press **<Esc>** to bring up the Options menu. Choose *Set File Transfer Options* to view or change the current option settings.
- **Begin the transfer**
  Either press F2 after selecting files, or choose *Begin Transfer* from the Options menu.

When a file or directory is *tagged* Norton pcANYWHERE/Remote displays an arrow mark next to the time of the file, as shown in the figure below. In addition, the heading line will use arrows to indicate the direction of the transfer.

File Options

The Options for YOUR FILES or Options for HOST FILES menus, displayed when you press **<Esc>** with the highlight in the YOUR FILES or HOST FILES window, allows you to perform a number of other activities. The menu displayed varies based on whether you have or have not tagged any files. The screen below shows the full menu when you have tagged some individual files and subdirectories:



```
           YOUR FILES       ↔ Transfer ↔          HOST FILES

 F:\PUBLIC                                       Options for YOUR FILES
  ..            <DIR>
  DOS           <DIR>     7-04-90 10:12◄     Begin Transfer
  APPIMAGE.PDF     292    9-21-88  9:56      Tag Group Of Files...
  APPLASER.PDF     201    9-21-88  9:56      Untag Group Of Files...
  ATTACH.EXE     30118   10-31-88 16:13      Delete Selected Files...
  CAPTURE.EXE    39655    3-01-89 12:04      Local Copy Of Selected File...
  CASTOFF.EXE    15383    7-15-87 12:49      Make A Sub-directory...
  CASTON.EXE     11079    5-29-87  8:52      Select A New Path...
  CHKVOL.EXE     19255    9-26-88  9:38      Set File Transfer Options...
  CIT120D.PDF      284    9-21-88  9:57◄     Delete Selected Directories:..
  CIT20.PDF        281    9-21-88  9:57◄     Quit File Transfer
  CIT224.PDF       356    9-21-88  9:57◄
  CITOH310.PDF     286    9-21-88  9:58◄
 ▾CITOH600.PDF     380    9-21-88  9:58
 155623424 bytes free                        3493888 bytes free

 4 File(s), 1207 bytes
F1=Help  ↑↓=Choose  ◄┘=Accept                                   Esc=End
```

Begin Transfer

This option is displayed when at least one file is tagged for transfer. Press ↵ to transfer the files.

Tag Group Of Files

Use this option to tag a group of files for transfer from the selected directory. Use the DOS wildcards (* and ?) to designate a group and type in your entry, as in these examples:

*.dat	all files with .dat extension
wp*.*	all files with names beginning with wp, and an extension
*.	all files with no extension
.	all files in the current directory

Untag Group Of Files

Use the method described above to untag any files that you do not wish to transfer from the selected directory.

> ***Tip***
>
> If you want to transfer most of the files in a directory, you can tag all files in the directory (use tag *.*) and then untag the selected files not to be transferred.

Delete Selected Files

If more than one file is tagged, you are asked if you wish to verify each deletion. If you select *No*, then all files will be deleted. If you select *Yes*, they will be asked to verify each file before deletion. If only one file is selected, you are asked to verify the deletion of the file.

Local Copy Of Selected File

Displayed when at least one file is tagged, choosing this option creates a copy of the selected files on the originating system. You are prompted for the destination directory for the copy of the file. If you have only tagged one file, you can also enter a new file name.

Rename Selected File

This option is displayed when only one file is tagged. Type in the new file name, and press ↵.

Make A Subdirectory

Use this option to create a new subdirectory in the selected system. The new subdirectory will be placed under the currently listed directory in the YOUR FILES or HOST FILES window. This option is useful when you need to create a new directory as the destination for transferred files. Norton pcANYWHERE/Remote prompts you for a directory name. Press ↵ after you type in the subdirectory name.

Select A New Path

Use this option when you want to display files from a different drive or directory. It is often faster to type in the new path rather than traverse up and down through the various directories. Type in the path and press ↵.

Set File Transfer Options

This selection allows you to specify some parameters for the file transfer operation. Fill in the following fields:

Destination File

This field helps determine what to do if files to be transferred already exist on the destination machine. Your choices are:

- **Verify Before Overwriting.** *(Default)* Choose this option if you want to be prompted any time a file to be transferred is already on the receiving machine. You will, at that time, be allowed to type in a new name for the received file.
- **Always Overwrite Duplicate Files.** Choose this option if you wish the transferred files to overwrite any files with the same name on the destination directory.
- **Never Overwrite Duplicate Files.** If you select this option, any tagged files that have the same names as files on the destination directory are not transferred.
- **Always Ask For Destination Name.** With this option selected, you are prompted to enter a new name for each file that is transferred, whether it is a duplicate or not.
- **Overwrite Older Files Only** This option will attempt to transfer all files. When, however, a file already exists on the destination machine, it will be transferred if and only if the date and time of the new file is later than the file which will be overwritten.

Compression

This field determines if data files are to be compressed during transfers. Your choices are:

- **Enabled** *(Default)* If you choose data compression, the files are compressed during the transfer, saving time when the files are large and you are using low baud rates.
- **Disabled.** This option turns off all data compression.

> ### *Tip*
> If you are transferring files that are already compressed (such as .ARC and .ZIP files) or your modems have built-in data compression, we recommend turning off compression no matter what type of connection you are using.

Allow deletion of directories - If set to no, you will not be able to delete entire directories. This is an extra safety measure.

Delete Selected Directories

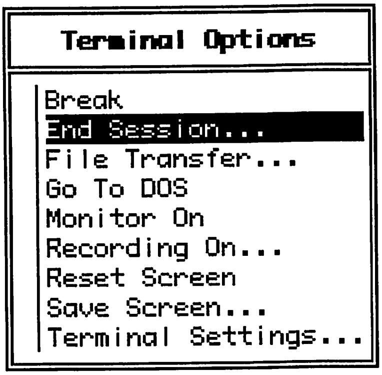
When you have tagged subdirectory entries (those entries shown in the YOUR FILES or HOST FILES window marked "<DIR>"), you can use this option to remove the entire subdirectory and all files and lower levels of directories contained within.

USE THIS OPTION WITH EXTREME CAUTION !

Quit File Transfer

Use this option to leave file transfer and return to the remote computing session.

Terminal Options Menu



These options are available to the remote user when Norton pcANYWHERE/Remote is being used for VT-220 terminal emulation mode with a non-ANYWHERE host. Press the remote hot key while on-line to get this menu.

BREAK

You should only use this option if you understand what effect it will have on the host system. When you select this option, a break signal is transmitted over your serial link. The effect of this signal will vary depending upon your host and what activities you are performing. For example, some host mainframes use the break signal to interrupt the current activity on the host.

Note
Do not confuse a break signal with the **<Ctrl-Break>** key on an IBM PC. The break signal is a hardware function and has nothing to do with a keystroke.

END SESSION

When you first access the Terminal Options menu during a session, *End Session* is highlighted. Press ↵ to leave terminal mode and return to the Remote Main Menu. If you have made a connection from the Norton pcANYWHERE/Remote Main Menu *Connect To Host* option, Norton pcANYWHERE/Remote prompts you for verification before disconnecting.

FILE TRANSFER

This option performs an XMODEM file transfer . (XMODEM is a standard communications protocol; most hosts accept it.). You may transfer only one file at a time. When you first select this option, Norton pcANYWHERE/Remote presents two options.

Receive

Select this option if the host is ready to send a file to you. Norton pcANYWHERE/Remote prompts you for the name of a file on your system where the host data will be received.

Send

Choose this option when you want to send a file to the host system. Norton pcANYWHERE/Remote prompts you for a file name. When you choose send, the current directory is displayed. Press ↵ to see a list of files or ⇓ to view a list of subdirectories. Choose the file you wish to send and press ↵ to begin the transfer. As the transfer takes place. Norton pcANYWHERE/Remote displays status messages, informing you of the progress of the transfer.

Select Protocol...

This option allows you to select from a list of protocols:

KERMIT
XMODEM
XMODEM-CRC
XMODEM-1K
YMODEM (batch)
XMODEM-1K-G
YMODEM-G (batch)
ZMODEM
ASCII

View/Modify Options...

The *View/Modify Options* choice is displayed when ZMODEM or ASCII is the selected protocol. See the *6. Remote Operation: Preferences* section in this document for a description of ASCII and ZMODEM options.

Run Script...

When *Run Script...* is selected, you can select a script via the standard file selection method, which will be immediately executed. (See Chapter 8, Norton pcANYWHERE Script Language, for more information on creating and running scripts.)

Printer On...

The *Printer On...* selection causes all receive data to be sent to the printer. If printing is already on, the selection reads *Printer Off.*

GO TO DOS

This option allows you to access your own remote computer when you are on-line with a host; Norton pcANYWHERE/Remote remains on-line and the host system is still engaged. If you are not connected to a host, this option simply provides DOS access, so you can check the files on your system or perform other DOS activities. To return to terminal mode, type `exit ↵`.

MONITOR ON/OFF

Default: Off
Advanced feature

Monitor mode is a special purpose display mode used to analyze received data on the screen. Monitor mode displays all received control codes (non-displayable data such as carriage returns) on the remote screen using the equivalent IBM graphic character set. The codes will not take their usual effect. For example, a received carriage return will be displayed as a musical note, and the cursor will not move to the next line. Monitor mode is used for troubleshooting.

This option works like a toggle switch. When monitor mode is off, the item displays as *Monitor On*; when monitor mode is on, the item displays as *Monitor Off.* The terminal status line will display MON when monitor mode is on.

RECORDING ON/OFF

Default: Off

Norton pcANYWHERE/Remote allows you to record your remote computing sessions in a file for later reference. This feature is fully described in Chapter 9, Utilities. Also see Chapter 6, Norton pcANYWHERE/Remote.

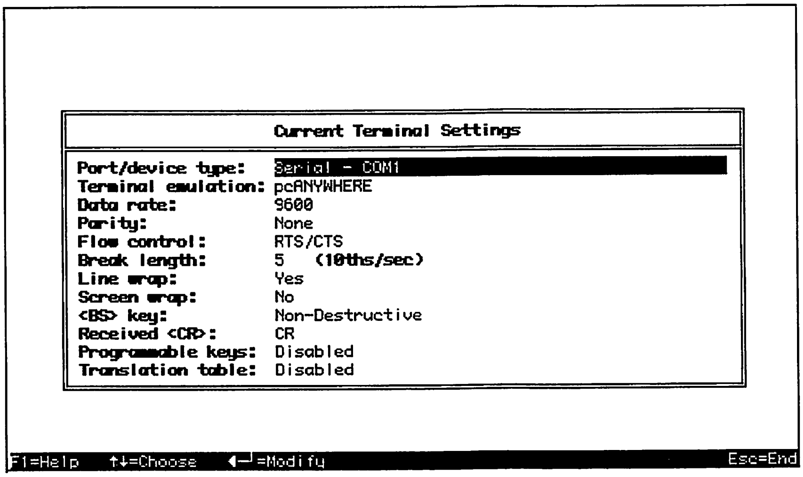
RESET SCREEN

This option clears your screen and places the cursor at the top left hand corner of the screen. Norton pcANYWHERE prompts you for confirmation before executing this request.

SAVE SCREEN

Save Screen simply takes a still snapshot of the current screen. Using the same keystrokes as when you pick a recording file, you must select a saved screen file. The default filename for saved screens is AW.SCN.

TERMINAL SETTINGS



```
                    Current Terminal Settings

Port/device type:     Serial - COM1
Terminal emulation:   pcANYWHERE
Data rate:            9600
Parity:               None
Flow control:         RTS/CTS
Break length:         5   (10ths/sec)
Line wrap:            Yes
Screen wrap:          No
<BS> key:             Non-Destructive
Received <CR>:        CR
Programmable keys:    Disabled
Translation table:    Disabled

F1=Help   ↑↓=Choose   ◄┘=Modify                               Esc=End
```

When you start a session from the Terminal Mode/Direct Connect option from Quick Connect screen, terminal settings may need to be changed at some point. For example, after talking to your modem at some high data rate, you may need to change the baud rate to match your non-ANYWHERE host after a connection is made.

We are not going to describe the terminal settings fields here. They are fully explained in Chapter 6, Remote Operation, under the heading **Terminal / Direct Connect Fields**. The only difference between those fields and the ones you see here is that the default settings are those last established from the Terminal/Direct Connect option on the Quick Connect screen.

Calling A Host From A Terminal

This section assumes the remote caller is using a terminal or a non-IBM compatible computer to call the host PC. This Norton pcANYWHERE feature can be part of a very cost-effective solution enabling a user to call in from an inexpensive terminal, or perhaps a Macintosh or Apple computer.

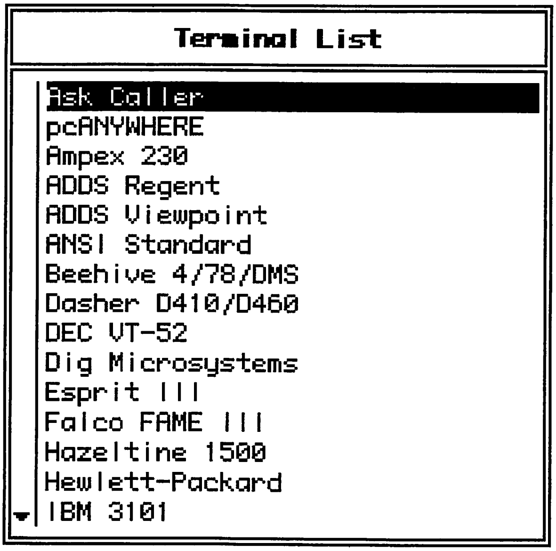
It can also be used to avoid the high cost of mainframe connections. To do this, connect one PC to the mainframe and then, from inexpensive terminals located elsewhere, dial into the PC and run the appropriate software to log into the mainframe.

Note

To use remote equipment that is not IBM PC compatible, all you need is a software package on this remote computer which is capable of terminal emulation.

HOST RESPONSIBILITIES

The host user selects Caller Information to gain access to the set up field *Terminal type.* For callers who will be using a terminal, this field must define a terminal type which corresponds to the terminal being emulated. The terminal selection list includes many popular terminals.



Terminal List

Ask Caller
pcANYWHERE
Ampex 230
ADDS Regent
ADDS Viewpoint
ANSI Standard
Beehive 4/78/DMS
Dasher D410/D460
DEC VT-52
Dig Microsystems
Esprit III
Falco FAME III
Hazeltine 1500
Hewlett-Packard
IBM 3101

It also includes the Ask Caller option. To allow a user to call in with any of a number of different terminal types, set that caller's *Terminal type* field to *Ask Caller.* Then the terminal designation is determined when the calling machine attempts connection to the host, and the host "asks" the caller to identify the type of terminal being used.

THE REMOTE TERMINAL'S KEYBOARD

The standard IBM PC keyboard has many special keys that may not be found on a terminal's keyboard. These include function keys, cursor position keys, editing keys, and combinations of keys using the **<Shift>**, **<Ctrl>** or **<Alt>** keys. Norton pcANYWHERE provides a way for you to simulate the IBM keyboard on your remote terminal or computer. Norton pcANYWHERE uses the **<Esc>** key followed by other keys to imitate the IBM PC keys.

The following table lists the keys used on terminals to simulate an IBM PC keyboard. The terminal keyboard equivalents can be changed using the Modify Terminal Configurations menu item under Utilities.

We have purposefully placed this ASCII conversion table on two pages so that terminal users may copy it for reference purposes. The description is on the left and the equivalent ASCII key sequence is on the right.

Home	ESC H
Up Arrow	ESC U
Pg Up	ESC P
Left Arrow	ESC L
Center Cursor	ESC M
Right Arrow	ESC R
End	ESC E
Down Arrow	ESC D
Pg Dn	ESC N
Ins	ESC I
Del	ESC X
Ctrl Home	ESC C H
Ctrl Up Arrow	ESC C U
Ctrl Pg Up	ESC C P
Ctrl Left Arrow	ESC C L
Ctrl Center Cursor	ESC C M
Ctrl Right Arrow	ESC C R
Ctrl End	ESC C E
Ctrl Down Arrow	ESC C D
Ctrl Pg Dn	ESC C N
Ctrl Ins	ESC C I
Ctrl Del	ESC C X
Alt Home	ESC K A H
Alt Up Arrow	ESC K A U
Alt Page Up	ESC K A P
Alt Left Arrow	ESC K A L
Alt Right Arrow	ESC K A R
Alt End	ESC K A E
Alt Down Arrow	ESC K A D
Alt Pg Dn	ESC K A N
Alt Ins	ESC K A I
Alt Del	ESC K A X
F1 - F10	ESC 1 - ESC 0
F11 - F12	ESC K 1 - ESC K 2
Shift F1 - F10	ESC S 1 - ESC S 0
Shift F11 - F12	ESC K S 1 - ESC K S 2
Ctrl F1 - F10	ESC C 1 - ESC C 0
Ctrl F11 - F12	ESC K C 1 - ESC K C 2
Alt F1 - F10	ESC A 1 - ESC A 0
Alt F11 - F12	Esc K A 1 - Esc K A 2

Alt 1 - Alt 0	Esc Q 1 - Esc Q 0
Alt A - Z	Esc A letter
Alt `	Esc A `
Alt -	Esc A -
Alt =	Esc A =
Alt \	Esc A \
Alt [	Esc A [
Alt]	Esc A]
Alt ;	Esc A ;
Alt '	Esc A '
Alt ,	Esc A ,
Alt .	Esc A .
Alt /	Esc A /
Ctrl Keypad /	Esc K C /
Ctrl Keypad *	Esc K C *
Ctrl Keypad -	Esc K C -
Ctrl Keypad +	Esc K C +
Alt Keypad /	Esc K A /
Alt Keypad *	Esc K A *
Alt Keypad -	Esc K A -
Alt Keypad +	Esc K A +
Null	Esc SPACE
Esc	ESC ESC
Shift Tab	ESC S TAB
Ctrl Backspace	ESC C BS
Ctrl Tab	ESC C TAB
Alt Backspace	ESC A BS
Alt Tab	ESC A TAB
Alt Enter	ESC A CR
Alt Keypad Enter	ESC K A CR
Alt Esc	ESC A ESC
Control Break	ESC C B
Print Screen	ESC S P
Ctrl Prt Sc	ESC C S P
Sys Req	ESC S R
Pop up menu	ESC C A M
Refresh Screen	ESC C A R
Scroll display up	ESC B
Scroll display down	ESC T
DesqView hot key	ESC C A D
Send next code	ESC Z

To make it easy for you to remember, we have selected C to represent the **<Ctrl>** key, S for the **<Shift>** key , and A (in most cases) for the **<Alt>** key.

For example, suppose you are running a word processing program that uses the IBM down arrow key. To perform the same function on your terminal, simply press the terminal's **<Esc>** key, followed by the **<D>** key. The cursor will move down a line just as if you pressed the down arrow key on the PC. You can use either upper or lower case letters.

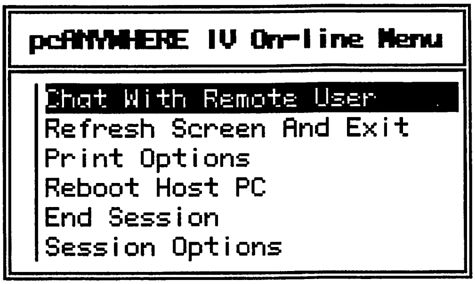
To invoke certain Norton pcANYWHERE features require special key sequences to be pressed on the remote terminal. The following table lists the key equivalents on the terminal and a brief description.

Esc, Backspace	Send a rubout code (decimal 127). Some word processor programs use a rubout to delete a character, for example.
Esc, C, A, R	Clear screen and redisplay (this removes "garbage" characters from the screen caused by telephone line noise).
Esc Z	Send the next key pressed without any possible interpretation as a special Norton pcANYWHERE sequence. This sequence is normally only needed if you have customized your Norton pcANYWHERE by redefining the keystrokes used to simulate the IBM PC keyboard. For example, suppose you have changed the definition of the cursor key on a Televideo terminal to the Televideo arrow key (the key transmits Ctrl-L). Then, if you are running a program needing a Ctrl-L input, you must press Esc, Z first, otherwise Norton pcANYWHERE will interpret the Ctrl-L as a cursor right command.
Esc, T	Display top 24 lines of PC screen.
Esc, B	Display bottom 24 lines of PC screen
Esc, C, A, M	Display session menu

Keystrokes To Invoke Certain Norton pcANYWHERE Functions From A Remote Terminal

Note about Terminals

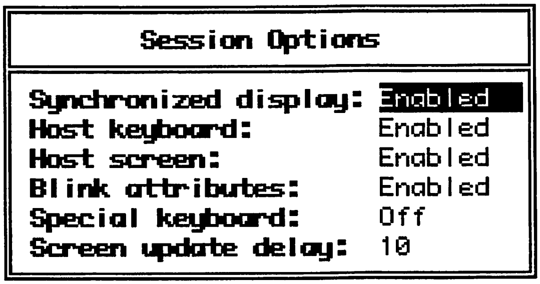
If you are using a remote terminal or terminal emulation program to access a Norton pcANYWHERE host, these are the session options which will appear when you press **<Esc, C, A, M>**:



pcANYWHERE IV On-line Menu

Chat With Remote User
Refresh Screen And Exit
Print Options
Reboot Host PC
End Session
Session Options

Each item on this menu is discussed in the context of a Norton pcANYWHERE/Host or Norton pcANYWHERE/Remote menu item in this chapter on Sessions. See Host Session Options and Remote Session Options.



Session Options

Synchronized display: Enabled
Host keyboard: Enabled
Host screen: Enabled
Blink attributes: Enabled
Special keyboard: Off
Screen update delay: 10

These options are discussed earlier in this chapter under the heading Special Options, an option from Remote Session Options.

THE 25TH LINE ON YOUR TERMINAL

The IBM PC screen has 25 displayable lines. Unfortunately, most terminals have only 24 lines (check your terminal manual). To see what's on the 25th line, Norton pcANYWHERE provides two special key sequences for selecting the portion of the IBM screen to be displayed on your terminal.

<Esc>, **T** tells Norton pcANYWHERE to show the top 24 lines (1 - 24) from the host PC screen. You might choose this option if you're running Lotus 1-2-3, for example, which has a menu on top.

<Esc>, **B** tells Norton pcANYWHERE to show the bottom 24 lines (2 - 25) from the host PC screen. This is handy for programs that use the bottom (25th) line for a function-key menu or other display. Data normally displayed on the top line of the host PC will not appear on the remote terminal's screen. Type **<Esc>**, **T** to see the top 24 lines.

Note

When first connected, the remote terminal's screen will display lines 1 through 24.

SCROLLING

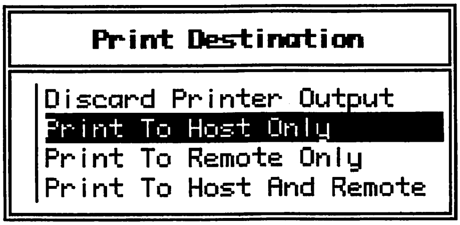
Depending on the particular PC and software you are using on your host PC, Norton pcANYWHERE may appear to occasionally "repaint" your terminal's screen while scrolling. If the definition for terminal sequences set up for your terminal includes sequences for inserting and deleting lines, this repainting will be kept to a minimum.

In addition, since terminals often scroll up whenever they display a character in the last position of the screen, Norton pcANYWHERE will usually leave that position blank to avoid having the screen scroll up before you are ready. Any character intended to be displayed in the last row and column will only appear when the screen next scrolls up.

PRINTING ON A REMOTE TERMINAL

Follow the procedure outlined below if you would like the host PC to redirect its printing to your remote terminal:

- Connect a serial printer to your terminal's printer port (often labeled "AUX"). See your terminal manual for directions.
- On the host side, bring up the caller information form for the selected remote terminal. Select the *Print destination* field and choose **Print to Remote Only** from the *Print Destination* menu that pops up:



Note

You should run *Utilities* first to verify that the terminal sequences for your terminal include entries for the "transparent print" strings.

FILE TRANSFER

Calling in with a terminal, you use the file transfer program AWSEND to do file transfers. AWSEND presents a File Transfer Parameters menu with the following fields:

- Send from: Host
- Host filename:

You specify the direction of the transfer with either *host* or *remote* in the first field, and then name of the file to send or receive.

> ***Tip***
> Press **<Esc> B** to reveal the host's 25th line during AWSEND operation so that you can see the status/help line.

After selecting these parameters, press **<Esc>** to bring up the se options on the *File Transfer Options* menu:

- Begin File Transfer
- End File Transfer
- Modify Parameters

Then do whatever your terminal emulator requires you to do to send or receive a file with XMODEM.

USING A PC-COMPATIBLE TERMINAL

Some terminal manufacturers produce terminals that emulate the PC's keyboard and character set. Some examples are Link PC Term, Kimtron KT-7/PC, and Ampex 232. These terminals provide an advantage in that no special keystrokes are required; they use the same keys you would use on your PC. Programs that look for special PC key combinations (such as **<Alt> <Shift>**) can also be executed remotely.

If you are using one of these types of terminals, you may use the following sequences for some of Norton pcANYWHERE/LAN's special functions:

- Press **<Ctrl><Alt>'R'** to refresh the screen
- Press **<Ctrl><Alt>'M'** to get a pop up menu
- Press **<Ctrl><Alt>'D'**, equal to the DESQview hot key

REBOOT

Whether or not a remote caller is allowed to reboot the host computer is determined by the host user. As a field in the *Host Preferences* form, the host user is given the following options for allowing reboot privileges to the remote caller:

No
Yes – Coldboot Always
Yes – Warmboot Always
Yes – Coldboot If Connection Lost
Yes – Warmboot If Connection Lost

Ending A Session With AWLOGOFF

The AWLOGOFF program allows a caller to end the Norton pcANYWHERE session in a number of ways. The method used is dependent on the previous mode. Use AWLOGOFF with the following keys to:

`AWLOGOFF W:`	Wait For A Call
`AWLOGOFF H:`	Hot Key To Activate
`AWLOGOFF A:`	Any Call Accepted
`AWLOGOFF C:`	Cancel

`AWLOGOFF` with no command line parameter implies "go back to original operating mode." In order for the host to execute a "command line" for the next caller, `AWLOGOFF W` must be used.

In addition, the remote user can logoff from the End Session pop-up menu with these options:

Wait For Another Call
Hot Key Activates
Incoming Call Activates
Cancel pcANYWHERE

If these options are not allowed, the remote user will get an *End Session: Yes/No* choice menu.

8

Norton pcANYWHERE Script Language

The Norton pcANYWHERE has a high-level script language that allows you to automate general communications sessions or perhaps to initiate remote computing sessions. For example, you can write a script to log on to a timesharing system, download some information, log off, and return control to the operating system. Other uses might include logging onto Symantec's Technical Support bulletin board service, MCI Mail or any one of hundreds of public information services. You could also use it to automate the reading of public and private mail on a BBS.

Script files are ASCII text files that contain the instructions or *commands* needed to perform a given set of operations. They can be created using any text editing or word processing program that can output simple ASCII text files. The ASCII script file you create must have the filename extension .SCR.

When Scripts Are Run

There are four ways to tell Norton pcANYWHERE to *run* a script (that is to say, perform all the commands in a script file):

1. Associated with each Host Information Entry is a field indicating the script file to be run after a successful connection to that host is made. This is the most common use of a script and is used for such things as dialing through public exchange or X.25 networks or for invoking a custom set of operations associated with a specific host computer.
2. When you are in a terminal mode session, use the remote hotkey to bring up the *Terminal Options* menu. Then select the *Run Script* option so you can select the name of the script file to be run.
3. Script files may be invoked from the DOS command line. The command-line arguments for running scripts are:

   - m = s
   - n = {script file_name}

   For example, the command lines below will cause the script file SAMPLE to be run:

   ```
   AWLAN -i=xxx -o=r -m=s -n=SAMPLE
   AWREMOTE -m=s -n=SAMPLE
   ```

4. If you wish to directly run a script before you are connected to any host computer, you can use the *Run Script* menu selection from the Remote Main Menu.

Script File Concepts

VARIABLES

Variables are names used to identify something you want remembered. For example, you may use the name ATTEMPTS to represent the number of times you want to attempt to complete a call to a particular host computer, or the name USERID for the user name input by the operator when a script is run.

User-defined variable names must begin with an alphabetic character, and may thereafter contain any letters, numbers or symbols except for any of the following:

```
=, +, -, *, /, |, &, ^, !, <, >, (, ), :, ;, [,
], comma and space
```

Although only the first eight characters are used to determine the uniqueness of a name, variable names can be any length. This makes it possible for your names to be more descriptive. In addition, variable names are not case-sensitive. For example, the names FIRST_FILE_NAME, First_file, and first_fiddle will be treated as the same variable. In addition, it is not recommended to have a variable name that matches a *reserved word*. These are words used by the script language as parts of commands, such as INTEGER, IF, or SET.

Norton pcANYWHERE script variables come in two “flavors,” *integer* and *string*. Each variable name should be *declared* at the start of a script. A *declaration statement* is a line in a script file that simply indicates the variable type and name of one or more script variables. Although it is advisable to declare all user and global variables (described below), undeclared variables can be used and will be treated as integers.

Integer variables

Integer variables may contain any integral numeric value (no decimal point) in the range -2,147,483,648 to +2,147,483,647.

Example integer declarations:

```
integer count, retries
integer number_of_files
```

String variables

String variables may contain from 0 to 255 characters. Any ASCII code may be part of a string. All string variables must be declared, with the declaration indicating the maximum length (number of characters) that the string will ever contain. If the length is not indicated in the declaration statement, pcANYWHERE will assume a length of 80.
Example string declarations:

```
string today[20], response[15]
string MyName[30]
string eighty_letters
```

There are three different groups of script variables. These groups determine when and how the variable may be accessed, as well as the variable's *scope*. The scope of a variable determines when the variable name is valid; that is, when it can be used in a script. Since script files can call for other script files to be run, the variables named in the first script may not be accessible to the called script.

User variables

User variables are those variables that you define using the naming conventions previously described. The scope of these variables is the current script only. Therefore, if your script calls another script, the values of variables in the calling script do not carry over into the called script, even if the variable name is also declared in the called script. In fact, the same variable name can be used in the called script to contain totally different information.

Reserved variables

Reserved variables are those variables that have special meaning to the pcANYWHERE script language. They may contain current settings of parameters, results of previous operations, and the current date and time, for example. Reserved variables may be used in script commands anywhere variables of the given type (integer or string) are allowed, with one exception. Some reserved variables are read-only. Therefore, those reserved variables cannot be used in any command where the value contained in the variable would normally change as a result of the command's execution.

All reserved variables start with a "$" character. They are accessible in any script, and, therefore, their scope is universal. A complete list of reserved variables precedes the descriptions of the script commands later in this chapter.

Global variables

Often it is desirable to set up some variables that will maintain their information and be accessible during the execution of a series of related scripts. The Norton pcANYWHERE script language allows up to 127 global variables for this purpose, named $1 through $127. The scope of global variables is the current script execution, which includes all nested and linked scripts. That is to say, when a script execution is complete, the values in the global variables are forgotten.

All global variables are assumed to be integers unless declared otherwise. If you choose to declare any global variables to be strings of various lengths, you must be sure to declare them in each script that contains any command referencing the particular variable. (Note that this is different than the first script that actually executes a command referencing that variable. For example, if script A calls script B and script B executes a command referencing $10, when script B exits and returns to script A, it is possible that script A then executes a command using $10. Even though script B might have used $10 first, since $10 is used someplace in script A, it must be defined in script A.) Note also that global variables must be defined the same way in each script (in a set of nested or linked scripts) that references them.

CONSTANTS

A constant is a fixed numeric or string value. Constants are often used in similar ways that variables are used within script commands or within arithmetic expressions.

Integer constants

Integer constants may have a value of -2,147,483,648 to 2,147,483,647. They may contain only digits and an optional "-". No commas or decimal points are allowed. Integer constants may also be expressed as hexadecimal numbers by preceding up to 8 hexadecimal digits (0-9, A-F) by the characters "0x". Examples of integer constants are:

```
1
592345
0x8000
```

String constants are always enclosed in single (') or double (") quotes. They may contain any displayable characters. If a string constant needs to include ASCII control codes (codes less than the decimal value 32), they can be represented by using the caret symbol ("^") followed by the letters "@, A-Z, [, \, ', ^, _". The most common use for control codes in string constants is to represent the carriage-return and line-feed characters, as in "^M^J". Some examples of string constants are:

```
"This line is terminated by a CR/LF.^M^J"
"MYFILE.DAT"
""
'A'
```

SCRIPT LINES

Script files are pure ASCII text files. Each line can be a single command, a *directive* or a *comment*.

Commands

A script command is a single instruction for something to be done. Each command has a name consisting of one or more reserved words. To further clarify how the instruction is to be executed or where the results will be stored, a command name is possibly followed by one or more *arguments*. An argument may be a variable, constant, or an arithmetic expression.

Command are used for many purposes. They can be grouped into various categories as shown below:

- Arithmetic commands that compute a value
- Communications operations
- DOS functions
- File input/output
- Script flow control
- Screen and keyboard input/output
- pcANYWHERE parameter settings
- Timing commands

Operators

Norton pcANYWHERE supports the following arithmetic and logical operators:

+	add
-	subtract
*	multiply
/	divide
|	bit-wise OR
&	bit-wise AND
^	exclusive OR
>	greater than
<	less than
>=	greater than or equals
<=	less than or equals
!=	not equal
==	equals
||	logical OR

&&	logical AND
(	opening parenthesis
)	closing parenthesis

Directives

A directive is a script file statement that helps Norton pcANYWHERE interpret your intentions. The script directives are the `integer` and `string` declarations described above.

Comments

Comment lines are use solely to document or annotate your scripts. It is a good idea to put comments in all scripts to remind you what your intentions were when you have to look at a script long after it was originally written. Script comments are preceded by the semicolon character (";"). They can be entered on a line by themselves, or added to the end of any other command or directive line. For additional clarity, you can also use blank lines to improve readability.

Some examples of comments are:

```
;
;  Time to compute the number of retries

LET count = 5
LET retry = count*2  ;This is another comment
```

Script File Execution

Script files are preprocessed to check for syntax errors. The preprocessing step converts your .SCR file into a file with the same name and the filename extension of .SCX. Preprocessing can be done explicitly by choosing the *Preprocess A Script* item from the *Utilities* menu. Otherwise, it will be done automatically when the script is run. In this case, Norton pcANYWHERE will check the dates and times of the .SCR file and .SCX file (if one exists) to see if the source script file has been changed since the last time it was preprocessed. If so, Norton pcANYWHERE will preprocess the script.

When the preprocessor finds syntax errors, they are written to a file with the same name as the script file but with an .ERR extension. You may use the DOS TYPE command to view SCRIPT.ERR to see which syntax has been flagged as incorrect.

Script File Error Handling

Norton pcANYWHERE script file commands may result in an error. A list of returned error values is supplied for your convenience later in this chapter. Script files can be written to trap run-time errors, or to abort the process on error and display the error message on the screen.

The result of each command is usually stored in the reserved variable $RESULT. If the command's outcome represents an error, an error code is stored in $ERROR.

Reserved Variables

Name	Description
$BAUD	contains the current baud rate (0 if LAN connection; read-only)
$BRKLEN	integer value for break length in tenths of seconds
$CANCEL	integer that is set to 0 or 1, depending on the SET CANCEL state
$CDELAY	integer set to the character delay value
$COLUMN	integer that contains the current cursor column starting at 1 for the left-most column (read-only)
$CTS	integer that is set to 0 or 1, depending on the state of the CTS signal (read-only)
$CURDIR	string that contains the current directory (read-only)
$DATE	string that contains the current date, in the format "MM/DD/YY"(if US) (read-only)
$DCD	integer that is set to 0 or 1, depending on the state of the DCD signal (read-only)
$DISCONNECT	integer that is set to 0 or 1, depending on the SET DISCONNECT state
$DSR	integer that is set to 0 or 1, depending on the state of the DSR signal (read-only)
$DTR	integer set to desired state of DTR
$ECHO	integer that is set to 0 or 1, depending on the SET ECHO state
$ERROR	integer set to the last error value. This value is not automatically cleared except at the start of a first level script. Possible values are: 0 = no error -1 = operator cancel -4 = timeout -8 = file not found -9 = create error -11 = script error: not enough memory

-12 = end of file
-15 = no connection
-18 = invalid device/handle
-29 = script error: too many scripts nested
-30 = script error: corrupted script
-32 = entry not found
-33 = unable to access file/device
-34 = script error: data out of bounds
-35 = script error: call/return nesting error
-36 = script error: invalid number of arguments
-37 = script error: invalid argument type
-38 = script error: invalid argument value
-39 = script error: invalid arithmetic expression
-40 = too many opened files
-42 = global variable redefinition

$IGNORECASE	integer that is set to 0 or 1, depending on the SET IGNORECASE state
$KEYHIT	1 if keystroke pending, 0 if none (read-only)
$PASSWORD	string that contains the password in the current host information entry
$PROTOCOL	integer set to the current protocol
$QUIET	integer set to 0 or 1 depending upon the SET QUIET state
$RECORD	integer that is the state of recording (on/off)
$RECORDFILE	string that is name of recording file
$RDA	integer containing state of receiver (0=empty, 1=not empty) (read-only)
$RESULT	integer set to the result of the last command executed (assuming it was one of the commands which sets $RESULT)
$RLINEEND	string used for READ LINE command's end of line
$ROW	integer that contains the current cursor row, starting at 1 for the top row (read-only)
$RTS	integer set to desired state of RTSDTR
$RXSTRING	receive string for ON RECEIVE monitoring

$SLINEEND	string used for SEND LINE command's end of line
$TBE	integer containing state of transmitter (1=empty, 0=not empty) (read-only)
$TIME	string that contains the current time, in the format "HH:MM:SS" (read-only)
$TIMEOUT	timeout value (in tenths of seconds)
$TLINEEND	string used for TYPE LINE command's end of line
$TRANSLATION	integer set to 0 or 1, depending on the SET TRANSLATION state

Commands

This section describes the commands in Norton pcANYWHERE's script file language. For each command, the command, purpose, usage, parameters and what the command returns are shown. Short examples are included for use of many of the commands.

Several conventions are used in the following command descriptions:

- Arguments types are shown in angle brackets (<>).

<string> or <str>	string constant
<string-variable> or <str-var>	string variable
<integer> or <int>	integer constant
<integer-variable> or <int-var>	integer variable

- When the argument is a string, a string variable may be used instead.
- Arguments shown in square brackets ([]) are optional.
- The vertical bar character ("|") separates possible choices for a single argument.

Script Language Command Reference

For all commands, unless otherwise noted, if an error occurs, both the $ERROR and $RESULT variables are set to the error value. If no error occurs, the $ERROR variable is not cleared (set to zero), but the $RESULT variable is set to an appropriate value, depending upon the command. If the command doesn't have a result, $RESULT is unchanged.

Operator cancel, timeout, and disconnect will not end a script but may terminate a wait or receive command. ON CANCEL, ON TIMEOUT, and ON DISCONNECT commands can be used for special processing when these conditions occur. Critical errors (noted in the table below) cause the script to be aborted unless an ON ERROR command is in effect. Other commands set $ERROR, and script execution continues.

Error values are:

VALUE	CRITICAL?	SIGNIFICANCE
-1	no	operator cancel
-4	no	timeout
-8	no	file not found
-9	no	create error
-11	no	not enough memory to execute the script
-12	no	end of file
-15	no	no connection
-18	yes	invalid device/handle
-19	no	file exists
-20	no	invalid path
-29	yes	too many nested scripts
-30	yes	corrupted script
-32	no	entry not found
-33	no	unable to access file/device
-34	yes	data out of bounds
-35	yes	gosub/return nesting error
-36	yes	invalid number of arguments
-37	yes	invalid argument type
-38	yes	invalid argument value
-39	yes	invalid arithmetic expression
-40	yes	too many opened files
-42	yes	global variable redefinition

Parameters described as “string” can be either string literals or string variables. Parameters described as “integer” can be either integer constants or integer variables. Parameters described as “string variable” or “integer variable” must be a variable of the indicated type. If a string is used as a parameter on the command line and is not in quotes, then it will be considered to be a string literal only if it does not contain a reserved word or is not defined as a variable.

For example, the following 2 lines both open a file named "file1":

```
OPEN 1 "file1"
OPEN 2 file1
```

But the following opens a file named "file2":

```
STRING file1[12]
LET file1 = "file2"
OPEN 1 file1
```

String literals that contain spaces must be surrounded by double quotes. One-word string literals that are the same as a reserved word must also be surrounded by double quotes. Integer constants can be in decimal notation or hexadecimal. Hexadecimal format starts with "0x".

For example, decimal 13 can also be represented as 0x0d.

Command: ANSWER

Action: Perform a “wait for a connection” operation. This command can be used for all device types. For serial connections, the “Connection start by” field in the hardware configuration determines how a successful ANSWER is detected. In addition, if a modem is specified in the current hardware configuration, the modem is initialized and set for Auto Answer mode. ANSWER terminates when a connection is made or if **<Esc>** is pressed.

Format: ANSWER

Example:

```
LOAD CONFIG "Hayes modem"  ;load hardware
                           ;configuration
ANSWER                     ;wait for a call
```

Command: BEEP

Action: The audible alarm is sounded.

Format: BEEP

Example:

```
TYPE STRING "Here comes a beep!"
BEEP                    ;sound the alarm
```

Command: BREAK

Action: A break signal is placed on the communication line for the amount of time specified by the current “break length” parameter. Use this for serial devices only.

Format: BREAK

Example:

```
BREAK              ;do a break
```

Command: CD

Action: Change the current directory to “pathname”. If there is no drive letter specified as part of the pathname, it sets the current directory of the current drive.

Format: CD pathname
where “pathname” is a string or string variable

Example 1:

```
CD \AW4          ;change directory to "\AW4"
```

Example 2:

```
newpath = "\DATA"
CD newpath       ;change directory to "\DATA"
```

Command: CLEAR BOL

Action: Clear the portion of the screen from the beginning of the current screen row up to and not including the current cursor position. Normal video spaces replace all cleared characters. The cursor remains in the same location.

Format: CLEAR BOL

Example:

```
CURSOR POSITION 10 25    ;clear screen line 10 from
CLEAR BOL                ;column 1 through column 24
```

Command: CLEAR BOP

Action: Clear the portion of the screen from the beginning of the screen up to and not including the current cursor position. All clear characters are replaced with normal video spaces. The cursor will remain in the same location..

Format: CLEAR BOP

Example:

```
CURSOR POSITION 10 25    ;clear from row 1, column 1
CLEAR BOP                ;to row 10,. column 24
```

Command: CLEAR EOL

Action: Clear the portion of the screen from the cursor to the end of the current line, including the character at the cursor position. All cleared characters are replaces with normal video spaces. The cursor will remain in the same location.

Format: CLEAR EOL

Example:

```
CURSOR POSITION 10 25    ;clear row 10 from
                         ;column 25
CLEAR EOL                ;to the end of the line
```

Command: CLEAR EOP

Action: Clear the portion of the screen from the cursor to the end of the screen, including the character at the cursor position. All cleared characters are replaced with normal video spaces. The cursor will remain in the same location..

Format: CLEAR EOP

Example:

```
CURSOR POSITION 10 25   ;clear from row 10,
                        ;column 25
CLEAR EOP               ;to the end of the screen
```

Command: CLEAR SCREEN

Action: Clear the entire screen and position the cursor to the top-left corner of the screen..

Format: CLEAR SCREEN

Example:

```
CLEAR SCREEN     ;clear entire screen and home the
                 ;cursor
```

Command: CLOSE

Action: Close a previously OPENed file. After closing the file, it cannot be read from or written to until it has been re-opened. All open files will be closed when script processing is done (that is, when the last script in a series of linked scripts ends).

Format: CLOSE n

Parameters:

n: a file number (1 - 9)

Example:

```
OPEN 1 "testfile.dat"         ;open a test file
WRITE 1 "Just a test"         ;write some data to it
CLOSE 1                       ;then close the file
```

Command: COPY

Action: Copy a DOS file.

Format: COPY source_file_name destination_file_name

Parameters:

source_file_name:	string is the name of the file to copy.
destination_file_name:	string is the name of the destination file to be created.

Example 1:

```
COPY \old\file1.dat \new\file2.dat  ;copy file1.dat
                                    ;to file2.dat
```

Example 2:

```
STRING oldFileName[12]                ;declare string
                                      ;variables
STRING newFileName[12]
LET oldFileName = "file.old"          ;set name of file
                                      ;to copy
LET newFileName = "file.new"          ;set name of new
                                      ;file
COPY oldFileName newFileName          ;do the copy
```

Command: CREATE

Action: Create a file. A create error (-9) is generated if the file already exists, unless the file is being created as a read/write file. In that case, the existing file is truncated to 0 length. If successful, the file is also opened.

Format: CREATE n filename [attributes]
Parameters:

n:	a file number (1 - 9)
filename:	string that is the name of the file to create
attributes:	an optional string containing a combination of the following: R = read-only W = read/write S = sharable

The default is non-sharable read/write.

Example 1:

```
CREATE 2 "file1" "SW"    ;create a sharable file
                         ;named "file1"
```

Example 2:

```
STRING filename[12]
LET filename = "file2"
CREATE 3 filename        ;create a non-sharable file
                         ;named"file2"
```

Command: CURSOR BLOCK

Action: Set the cursor shape to full rectangular block.

Format: CURSOR BLOCK

Example:

```
CURSOR BLOCK       ;set cursor to block
```

Command: CURSOR DOWN

Action: Move cursor down the indicated number of lines. The default when the optional argument is omitted is one line. The cursor remains in the same column. NOTE: the CURSOR DOWN command will end with the cursor on the bottom row if the cursor down count causes the cursor to reach the bottom row.

Format: CURSOR DOWN [count]

Parameters:

count: optional integer containing the number of times to move the cursor. The default is 1.

Example 1:

```
CURSOR DOWN 5          ;move the cursor down 5 lines
```

Example 2:

```
count = 5
CURSOR DOWN count      ;move the cursor down 5 lines
```

Example 3:

```
CURSOR DOWN            ;move the cursor down 1 line
```

Command: CURSOR HOME

Action: Move cursor to the home position, which is at the top left-hand corner of the screen. This command has the same effect as a CURSOR POSITION 1 1 command.

Format: CURSOR HOME

Example:

```
CURSOR HOME    ;home the cursor
```

Command: CURSOR LEFT

Action: Move cursor left the indicated number of columns. The default when the argument is omitted is one column. The cursor remains in the same row. If the cursor left count causes the cursor to reach column 1, the command will be then be terminated, leaving the cursor in column 1.

Format: CURSOR LEFT [count]

Parameters:

count: optional integer containing the number of times to move the cursor. The default is 1.

Example 1:

```
    CURSOR LEFT 5  ;move the cursor left 5
                   ;columns
```

Example 2:

```
    CURSOR LEFT    ;move the cursor left 1 column
```

Command: CURSOR LINE

Action: Set the cursor shape to a single underscore.

Format: CURSOR LINE

Example:

```
CURSOR LINE          ;set cursor to underscore
```

Command: CURSOR OFF

Action: Turn the cursor indicator off. This command will not, however, change the current cursor position.

Format: CURSOR OFF

Example:

```
CURSOR OFF    ;turn the cursor off
```

Command: CURSOR POSITION

Action: Move the cursor to a specific position on the screen.

Format: CURSOR POSITION row column

Parameters:

row:	an integer specifying the row to where the cursor should be moved starting with 1 for the top row. An "*" indicates that the row should not be changed.
column:	an integer specifying the column to where the cursor should be moved, starting with 1 for the first column. An "*" indicates that the column should not be changed.

Example 1:

```
CURSOR POSITION 1 10      ;move cursor to row 1,
                          column 10
```

Example 2:

```
CURSOR POSITION * 20      ;move cursor to column 20
                          ;of current row
```

Example 3:

```
CURSOR POSITION 5 *       ;move cursor to row 5 of
                          ;current column
```

Example 4:

```
INTEGER column
INTEGER row
column = 10
row = 7
CURSOR POSITION row column ;move cursor to row 7,
                           ;column 10
```

Command: CURSOR RESTORE

Action: Restores the cursor position, cursor type, and current video attribute to those last saved by the most recent CURSOR SAVE command.

Format: CURSOR RESTORE

Example:

```
CURSOR SAVE               ;save current cursor
                          ;information
CURSOR POSITION 10 10     ;move cursor before next
                          ;subroutine
GOSUB GETINPUT            ;call some data entry
                          ;subroutine
CURSOR RESTORE            ;cursor returns to position
                          ;before call to GETINPUT
```

Command: CURSOR RIGHT

Action: Move cursor right the indicated number of columns. The default is one column. The cursor remains in the same row. If the cursor right count causes the cursor to reach column 80, the command will be then be terminated, leaving the cursor in column 80.

Format: CURSOR RIGHT [count]

Parameters:

count: optional integer containing the number of positions to move the cursor to the right. The default is 1.

Example 1:

```
INTEGER count
count = 5
CURSOR RIGHT count    ;move the cursor right 5
                      ;columns
```

Example 2:

```
CURSOR RIGHT          ;move the cursor right 1
                      ;column
```

Command: CURSOR SAVE

Action: Saves the current cursor position, cursor type, and video attribute. The CURSOR RESTORE command restores these.

Format: CURSOR SAVE

Example:

```
CURSOR POSITION 10 10   ;position  cursor to row
                        ;10, col 10
CURSOR SAVE             ;save its position
CURSOR POSITION 1 1     ;move it
CURSOR RESTORE          ;cursor goes back to row
                        ;10, col 10
```

Command: CURSOR UP

Action: Move cursor up the indicated number of lines. The default is one line. The cursor remains in the same column. If the cursor up count causes the cursor to reach row 1, the command will be then be terminated, leaving the cursor on the first row.

Format: CURSOR UP [count]

Parameters:

count:	optional integer containing the number of times to move the cursor up. The default is 1.

Example 1:

```
CURSOR UP 5     ;move the cursor up 5 lines
```

Example 2:

```
CURSOR UP       ;move the cursor up 1 line
```

Command: DECRYPT

Action: Decrypt a string based on another ("key") string. If a string is encrypted using the ENCRYPT command with the same key string, then unencrypted using the DECRYPT command, you will get the original string again.

Format: DECRYPT source key

Parameters:

source:	a string variable containing the string to be unencrypted. The resulting string is also stored here.
key:	string containing the encryption key

Example:

```
STRING password[20]
password = "MYPASSWORD"
ENCRYPT password "SYMANTEC"    ;password is
                               ;encrypted
DECRYPT password "SYMANTEC"    ;password is restored
```

Command: DEL

Action: Delete one or more files.

Format: DEL filename

Parameters:

filename: string containing the filename specifier for the files to be deleted. The filename can contain wildcard characters (? or *) to delete a set of matching files.

Example 1:

```
DEL myfile.dat        ;delete "myfile.dat"
```

Example 2:

```
DEL *.TXT          ;delete all .TXT files
```

Example 3:

```
STRING filename[12]
filename = "myfile.dat"
DEL filename       ;delete "myfile.dat"
```

Command: DELETE CHAR

Action: Delete one or more screen characters starting with the character at the current cursor position. For each character deleted, the characters to the right on the same screen row are shifted left one position, with the last column being replaced with a normal video space. The current cursor position does not change. If the optional count is omitted, one character is deleted. This command will not affect any other row.

Format: DELETE CHAR [count]

Parameters:

count: optional integer containing the number of characters to delete. The default is 1.

Example 1:

```
DELETE CHAR             ;delete the character at the
                        ;cursor
```

Example 2:

```
DELETE CHAR 5           ;delete 5 characters at the
                        ;cursor
```

Command: DELETE LINE

Action: Delete one or more lines starting at the row where the cursor is currently located. With each line deleted, lines lower on the screen will be moved up one line, with the last screen row being filled with normal video spaces. The cursor is then positioned to column one of the current row. If the optional count is left blank, one line will be deleted.

Format: DELETE LINE [count]

Parameters:

count: optional integer containing the number of lines to delete. The default is 1.

Example 1:

```
DELETE LINE            ;delete current line
```

Example 2:

```
INTEGER count
count = 5
DELETE LINE count      ;delete 5 lines
```

Command: DIAL HOST

Action: Attempt to make a connection with a host computer using a host information entry previously set up. It first causes the hardware configuration associated with the host entry to be loaded, then performs the same operation as selecting "Call" from the remote mode Connect Options screen.

Format: DIAL HOST host_name

Parameters:

host_name:	string containing the name of a host computer to which a connection is to be attempted.

Example:

```
DIAL HOST "My office PC"    ;connect to a waiting
                            ;host
```

Command: DIAL NUMBER

Action: Attempts to make a modem connection by dialing the indicated phone number. It assumes that the "current" configuration has already been loaded and that a modem to be used is named.

Format: DIAL NUMBER number

Parameters:

number: string containing the phone number to dial

Example:

```
LOAD CONFIG "Modem"          ;load a modem
                             ;configuration
DIAL NUMBER "555-5555"       ;then dial the number
```

Command: DIR

Action: Display a directory list of files to screen. $RESULT contains the number of files that match the filename.

Format: DIR filename

Parameters:

filename: string containing the file specifier to use. The filename specifier may contain wildcard characters (? or *).

Example:

```
STRING S1[10]
DIR \DATA\*.DAT              ;display list of .DAT
                             ;files
TYPE "^M^MNumber of files: "
S1 = $RESULT                 ;convert to string
TYPE S1                      ;display count
```

Command: EMULATE

Action: Specify which of the supported terminal types to emulate when in Terminal Mode or when character sequences are output to the screen from a script. Each emulation has its own set of screen sequences to control cursor positioning, screen clearing, attributes, and other behavior.

Format: EMULATE emulation_name

Parameters: emulation_name: string containing one of the supported emulation names:

PC	for Norton pcANYWHERE remote access sessions)
ANSI	(Standard ANSI terminals)
VT100	(DEC VT-100)
VT102	(DEC VT-102)
VT220-7	(DEC VT-220, 7-bit mode)
VT220-8	(DEC VT-220, 8-bit mode)
VT52	(DEC VT-52)
TVI912	(Televideo 912)
TVI920	(Televideo 920)
TVI925	(Televideo 925)
IBM3101	(IBM 3101)
DG100	(Data General Dasher 100)
DG200	(Data General Dasher 200)
WYSE50	(Wyse 50)
HAZ1500	(Hazeltine 1500)
ADM3A	(LSI ADM-3A)
ADDSVPT	(ADDS Viewpoint)

Example:

```
EMULATE VT100     ;emulate a VT-100
```

Command: ENCRYPT

Action: Encrypt a string based on another "key" string. Once encrypted, you can only recover the original string by using the DECRYPT command specifying the same key string.

Format: ENCRYPT source key

Parameters:

source:	a string variable containing the string to be encrypted. The resulting string is also stored here.
key:	string containing the encryption key

Example:

```
STRING password[20]
password = "MYPASSWORD"
ENCRYPT password "SYMANTEC"    ;password is
                               ;encrypted
DECRYPT password "SYMANTEC"    ;password is
                               ;restored
```

Command: END

Action: End the current script, generally returning to the place from which the script was originally invoked. If the current script was called from another script, control returns to the calling script at the line following the command that caused this script to execute. If the current script was started from the terminal mode hotkey menu, control returns to terminal mode. If started from the main menu, control is returned to the main menu. If started from a DOS command line, the program is terminated.

Format: END [return_code]

Parameters:

return_code:	an optional integer that is stored in $RESULT if called from another script, or set as the DOS ERRORLEVEL if control is being returned to DOS.

Example 1:

```
END                ;end script; no script status
```

Example 2:

```
END -1             ;end script; -1 is the return code
```

Command: END MENU

Action: End the current script and passes control to the main menu, no matter how the script was invoked.

Format: END MENU

Example:

```
END MENU           ;end the script and go to main menu
```

Command: END TERMINAL

Action: End the current script and passes control to terminal mode, no matter how the script was originally invoked. Unlike the TERMINAL command, when terminal mode is exited, control will not pass back to the script containing the END TERMINAL command.

Format: END TERMINAL

Example:

```
END TERMINAL          ;end the script and go to
                      ;terminal mode
```

Command: EXIT

Action: End Norton pcANYWHERE and exit to DOS. If the "ONLINE" option is specified and a serial connection was in progress, the DTR signal is not lowered upon exiting the program. This makes it possible to keep a modem connection alive while you are in DOS. Otherwise, the connection is terminated upon exiting Norton pcANYWHERE.

Format: EXIT [ONLINE] [return_code]

Parameters:

return_code: If specified, the DOS ERRORLEVEL variable is set to this code.

Example 1:

```
EXIT            ;end the program
```

Example 2:

```
INTEGER returnCode
LET returnCode = 1
EXIT ONLINE returnCode  ;end program, don't
                        ;break the connection; set
                        ;RRORLEVEL to 1
```

Command: FIND FIRST

Action: Search the disk for the first file that matches the desired filename specifier. Use the drive named in the filename specifier or the current drive if none is indicated. Optionally store the name of the first matching file in a string variable.

Format: FIND FIRST filename [destination]

Parameters:

filename:	string containing file specifier to search for. May contain wildcard characters (? or *).
destination:	optional string variable where the matched filename will be stored.
$RESULT:	Set to 1 if file match found; otherwise, set to 0.

Example :

```
FIND FIRST "*.DAT"                  ;look for matching
                                    ;.DAT files
IF $RESULT == 1 GOTO _FOUND
TYPE "No matching files found"      ;say "no"
GOTO _END
_FOUND:
TYPE "Matching files found"         ;say "yes"
_END:
```

Command: FIND NEXT

Action: Following a successful FIND FIRST call, FIND NEXT will locate the next matching file and store the matching file's name in the optional destination string variable.

Format: FIND NEXT [destination]

Parameters:

destination:	optional string variable where the matching name is to be stored.
$RESULT:	1 if another file match found; otherwise, set to 0.

Example:

```
INTEGER count                      ;count and display
                                   ;.DAT files
STRING s1[10]
STRING match[12]
count = 0                          ;initialize count
                                   ;to 0
FIND FIRST "*.DAT"   match         ;check if any .DAT
                                   ;files
IF $RESULT == 1 GOTO _FOUND        ;branch if yes
TYPE "No matching files found";else "no matching
                                   ;files"
GOTO _END                          ;and terminate
_FOUND:                            ;found a match!
count = count + 1                  ;increment count
TYPE STRING match                  ;display  filename
TYPE STRING "^M^J"                 ;move cursor to next
                                   ;line
FIND NEXT match                    ;any more?
IF $RESULT == 1 GOTO _FOUND        ;branch if another
                                   ;found
TYPE "Number of *.DAT files: ";else display count
s1 = count                         ;converts integer to
                                   ;string
TYPE s1
_END:
```

Command: GET FILE ATTR

Action: Get the file attributes for a specified file.

Format: GET FILE ATTR filename [destination]

Parameters:

filename: string containing the name of the file; no wildcards
destination: optional integer variable where the file attribute value is to be stored. The file attribute result is bit-mapped as follows:
bit 0: set if read-only
bit 1: set if hidden
bit 2: set if a system file
bit 3: set if a volume label
bit 4: set if a subdirectory
bit 5: archive bit - set if file written to
$RESULT: attribute value also stored here.

Example:

```
INTEGER attribute                     ;get file
GET FILE ATTR myfile attribute        ;attributes for
                                      ;file named
                                      ;"myfile"
```

Command: GET FILE DATE

Action: Get the date for a specified file.

Format: GET FILE DATE filename [destination]

Parameters:

filename: string containing name of file; no wildcards
destination: optional string variable where the file's date is to be stored as a string with the format "YYMMDD".
$RESULT: the file's date stored as an integer.

Example:

```
STRING filename[12]
LET filename = "MYFILE.DAT"
GET FILE DATE filename     ;store file's date in
                           ;$RESULT
```

Command: GET FILE SIZE

Action: Get the size of a file.

Format: GET FILE SIZE filename [destination]

Parameters:

filename:	string containing name of file; no wildcards
destination:	optional string variable where the file's size is to be stored as an ASCII string
$RESULT:	the file's size stored as an integer

Example:

```
STRING size[10]
GET FILE SIZE "myfile.dat" size         ;get the
                                        ;size
TYPE STRING "The size of the file is "
TYPE STRING size                        ;display it
```

Command: GET FILE TIME

Action: Get the time for a specified file.

Format: GET FILE TIME filename [destination]

Parameters:

filename:	string containing name of file; no wildcards.
destination:	optional string variable where the file's time is to be stored as a string with the format "HHMM" (24-hour clock).
$RESULT:	the file's time stored as an integer.

Example:

```
STRING filename[12]
STRING time[4]
LET filename = "MYFILE.DAT"
GET FILE TIME filename time    ;store file's time in
                               ;$RESULT and as a
                               ;string into "time"
```

Command: GET FREE DISK

Action: Get free space for a drive.

Format: GET FREE DISK drive [size]
Parameters:

drive: string containing drive whose free space is to be determined size: optional string variable where the free space is to be stored as an ASCII string
$RESULT: $the free space stored as an integer

Example:

```
STRING size[12]
GET FREE DISK C size        ;get free space on
                            ;drive c
TYPE "Free space on drive C: "
TYPE STRING size            ;display it
```

Command: GET ENVIRONMENT

Action: Get the DOS environment string associated with a specified key word.

Format: GET ENVIRONMENT env_name env_result

Parameters:

env_name: string containing environment key word.
env_result: string variable where the environment string is to be stored.
$RESULT: Set to 0 if environment keyword not defined; otherwise, set to 1.

Example:

Fetch the "pcANYWHERE" path indicated by an "AW=" environment string. Assuming "AW=c:\aw" is set, then awPath will be set to "c:\aw".

```
STRING awPath[80]    ;place to store result
GET ENVIRONMENT "AW" awPath
```

Command: GOSUB

Action: Call a subroutine within the same script file. Control passes to the line after the specified label within the current script, with the line following the GOSUB being remembered as the place to return to when the matching RETURN statement is encountered. Subroutines may be nested 10 levels deep.

Format: GOSUB label

Parameters:

label:	a label within the current script.
$RESULT:	Contains the return code value set by the called subroutine upon return.

Example:

Fetch a string input from the operator, then transmit it if at least one character was entered.

```
STRING inString
GOSUB GetInput                ;input a line from
                              ;the user
IF $RESULT == 0 GOTO the_end  ;exit now if nothing
                              ;entered
SEND STRING inString          ;and send it
the_end:
End                           ;end the script
GetInput:                     ;start of subroutine
INPUT inString                ;input a string
STRLEN inString               ;set $RESULT to the
RETURN $RESULT                ;string's length and
                              ;return it
```

Command: GOTO

Action: Branch to a label defined in the current script.

Format: GOTO label

Parameters:

label: a label within the current script.

Example:

```
GOTO LABEL1
TYPE "This is not displayed"
LABEL1:
TYPE "This is displayed"
```

Command: HANG

Action: Terminate a connection.

Format: HANG

Example:

```
DIAL HOST "My office BBS"
    .
    .
    .
HANG
```

Command: IF

Action: Conditional processing: if the expression following the "IF" is true, the command is executed; otherwise it is not executed.

Formats: IF expression GOTO label
IF expression THEN command

Parameters:

expression:	an arithmetic expression containing variables, integer constants, and operators. Note that the expression may not be used to compare values in strings. In fact, if string variables are used in the expression, each string will be converted to a numeric value by evaluating the leading numeric portion. For example, the string "123ABX" has the numeric value 123.
label:	a label to branch to.
command:	any valid script command.
$RESULT:	Set to 0 if expression is false; otherwise, set to 1.

Example 1:

```
IF ($time >= 1100) GOTO start ;check if passed
                              ;11:00AM; if so,
                              ;branch to label
                              ;'start'
```

Example 2:

```
CALL sub1
IF ($RESULT < 0) THEN TYPE STRING "Result is less
than 0"
IF ($RESULT == 0) THEN TYPE STRING "Result is equal
to 0"
IF ($RESULT > 0) THEN TYPE STRING "Result is
greater than 0"
```

Command: INDEX

Action: Locates position of one string within another.

Format: INDEX source_string search_string [position]

Parameters:

source_string:	string containing source.
search_string:	string or stringvar iable containing string to look for within 'source_string'.
position:	optional integer variable where the character position of the match is to be stored. Set to 0 if 'search_string' not within 'source'.
$RESULT:	position within 'source_string' where 'search_string' is found (0 if not found).

Example:

```
STRING source[20]
INTEGER offset
source = "ABCDEFGH"
INDEX source "BCD" offset  ;offset is set to 2
```

Command: INSERT CHAR

Action: Insert one or more spaces at the current cursor position. Characters at the current cursor position and to the right are moved to the right. Characters at the end of the line are lost. The cursor position does not change.

Format: INSERT CHAR [count]

Parameters:

count: optional integer which is the number of spaces to insert. The default is 1.

Example:

```
INSERT CHAR          ;these two lines insert an "A"
TYPE STRING "A"      ;at the current cursor
                     ;position
```

Command: INSERT LINE

Action: Insert one or more lines of normal video spaces at the line containing the cursor. The original line containing the cursor and all lines lower on the screen will be moved down. Lines that would be moved below the bottom screen line will be lost. The cursor is then repositioned to column 1 on the same line as it was on..

Format: INSERT LINE [count]

Parameters:

count: optional integer which is the number of lines to insert. The default count is 1.

Example:

```
INTEGER count
count = 3
INSERT LINE count ;insert 3 lines at the cursor row
```

Command: INPUT

Action: Input data from the keyboard until the ↵ key is pressed. The length of the data entry field is the specified length or the size of the destination variable, whichever is smaller. The following keys can be used to edit the data: right and left arrow keys, **<Ctrl>-<End>** to delete to the end of the string, **<Backspace>**, **<Del>**, **<Home>**, **<End>**, and **<Ins>** (to toggle insert mode operation).

Format: INPUT destination [maxcount]

Parameters:

destination:	string variable where input data is to be stored.
maxcount:	optional integer specifying the maximum number of characters to input. The default is the length of the string variable.
$RESULT:	number of characters input (excluding the terminating CR).

Example:

Get a name from the operator, then transmit the result followed by a carriage return (assumed to be the default value of $SLINEEND used by the SEND LINE command):

```
STRING name[30]
TYPE "Enter your name (up to 30 chars): " ;prompt
INPUT name 30                         ;input 30 characters
SEND LINE name                        ;send the name
```

Command: INPUT KEY

Action: Input one character from the keyboard. The key is not echoed to the screen.

Format: INPUT KEY destination

Parameters:

destination:	string variable where key is to be stored. Key will be stored as the first character of the string.
$RESULT:	key code also stored here.

Example:

Fetch a yes/no response (Y or N, uppercase or lowercase) from the user and output an appropriate string based on the answer:

```
STRING yn[1]
TYPE "Enter Y or N: "   ;prompt for Y or N
 loop:
   INPUT KEY yn         ;input 1 key
   UPPER yn             ;make it upper case
   STRCMP yn "Y"        ;check if Y hit
   IF ($RESULT == 0) GOTO label_yes ;yes - go to
                                    ;label_yes
   STRCMP yn "N"        ;check if N hit
   IF ($RESULT == 0) GOTO label_no  ;yes - go to
                                    ;label_no
   BEEP                 ;if neither, beep
   GOTO loop            ;and input another key
label_yes:
   TYPE "YES!"          ;type "YES!"
   GOTO label_1
label_no:
   TYPE "NO!"           ;type "NO!"
label_1:
```

Command: KEYBOARD FLUSH

Action: Kill all typed-ahead keyboard characters. This command can be used just prior to an INPUT command to make sure that the user types a response only after a prompt is displayed.

Format: KEYBOARD FLUSH
Example:

Get up to a ten-character password from the operator after discarding any type-ahead characters:

```
STRING response[10]
TYPE STRING "^M^JEnter your password: "  ;prompt
KEYBOARD FLUSH          ;flush keyboard type-ahead
INPUT response          ;input new response
```

Command: KEYBOARD HIT

Action: Check if the user has pressed a key that has not been read with an INPUT or INPUT KEY statement.

Format: KEYBOARD HIT [destination]

Parameters:

destination:	optional integer variable set to 0 if a key has not been pressed or set to 1 if a key has been pressed.
$RESULT:	also set to the status of the keyboard (0 or 1).

Example:

Subroutine to check if an ESCape key has been pressed. It will set $RESULT to 0 if not, or 1 if so:

```
checkEsc:
   KEYBOARD HIT                         ;check if a key
                                        ;pressed
   IF ($RESULT == 0) THEN RETURN 0      ;return if no
                                        ;key hit
   INPUT KEY inkey                      ;get the key
   STRCMP inkey "^["                    ;check for
                                        ;ESC key
   IF ($RESULT == 0) THEN RETURN 1      ;return 1 if so
   GOTO checkEsc                        ;check for more
                                        ;keys
```

Command: LET

Action: Start of an arithmetic expression. The command name "LET" is optional. It is only required if the destination variable name is the same as a reserved word, such as a command name.

Format: LET variable = arithmetic_expression

Parameters:

variable:	integer or string variable.
arithmetic_expression:	any expression containing integers, string, and operators.

Example:

```
STRING echo[10]
INTEGER base
INTEGER number
LET echo = "ABC"  ;need LET because ECHO is a
                  ;reserved word and otherwise
                  ;could not be used as a variable
number = base * 10
```

Command: LINK

Action: Link to another script, terminating the current script. Control passes to the indicated script. When the LINKed script ends, control will return to the script that called the one issuing the LINK command, if any. This differs from the SCRIPT command, for which control comes back to the original script after the LINKed script terminates. In effect, the LINKed script can be thought of as the continuation of the original script, except that the old script's local variables will be lost.

Format: LINK script_name

Parameters:

script_name:	string containing the name of the script to link to. The name should not include a file name extension.

Example:

```
TYPE "This script is ending and passing control to
another"
LINK "SCRIPT2"
```

Command: LOAD CONFIG

Action: Load a hardware configuration entry. The configuration name must be defined in the list of hardware configurations.

Format: LOAD CONFIG hardware_config_name

Parameters:

hardware_config_name:	string containing the name of the hardwar configuration entry to load. This name must exactly match a name in the Hardware Configuration list.

Example:

```
LOAD CONFIG "Hayes Ultra on COM1"   ;load hayes/com1
                                    ;configuration
DIAL NUMBER "555-5555"              ;then dial a number
```

Command: LOAD HOSTINFO

Action: Load a host information entry. The name must exist in the list of host entries. The hardware configuration associated with the host information entry is automatically loaded at the same time.

Format: LOAD HOSTINFO host_information_name

Parameters:

host_information_name:	string containing the name of the host information entry whose parameters are to be loaded.

Example:

```
LOAD HOSTINFO "CompuServe"     ;load CompuServe
                               ;parameters
```

Command: LOAD FKEYS

Action: Load a function key file. containing programmable function key information. Function key translations are in effect only in Terminal Mode (not during script execution).

Format: LOAD FKEYS keyboard_file

Parameters:

keyboard_file: string containing name of function key file. Do not include a filename extension (.KEY is assumed).

Example:

```
LOAD HOSTINFO "MCI Mail";load MCI's host
                        ;information
```

```
LOAD FKEYS "MCI-MAIL"      ;load key table for use
                           ;with MCI
DIAL NUMBER "555-5555"     ;call MCI Mail
END TERMINAL               ;go to terminal mode
```

Command: LOAD TRANSLATION

Action: Load a translation table file that specifies receive and transmit translations. Note that the SET TRANSLATION ON/OFF commands are used to specify whether or not the loaded translation table is to be used.

Format: LOAD TRANSLATION translation_file

Parameters:

translation_file:	string containing name of the translation file. Do not include a filename extension (.XLT is assumed).

Example:

```
LOAD TRANSLATION "striphi" ;load table to strip
                           ;high bits
SET TRANSLATION ON         ;and enable translations
```

Command: LOWER

Action: Convert all uppercase characters in a string to lowercase characters.

Format: LOWER source

Parameters:

source:	string variable containing string to be translated to lowercase. Non-lowercase characters are not affected. The result is also stored in the source variable.

Example:

```
STRING str[10]
```

```
str = "aBC"
LOWER str
TYPE str    ; types "abc"
```

Command: MD

Action: Create a directory.

Format: MD dirname

Parameters:

dirname: string containing the directory to be created

Example:

```
MD ANYWHERE    ;create a directory named "ANYWHERE"
```

Command: ON CANCEL

Action: Specify a command to be executed if the user presses **<Esc>** during a wait or receive command. Its action will take place only if there was a previous SET CANCEL ON command.

Format: ON CANCEL [command]

Parameters:

command: command to execute. If no command is specified, CANCEL is disabled (the same as if SET CANCEL OFF was executed).

Example:

```
SET CANCEL ON                    ;enable CANCEL
                                 ;operation
ON CANCEL GOTO _cancel           ;specify what to do
                                 ;if ESC hit
DIAL HOST "CompuServe"           ;dial a host
WAIT STRING "Enter password"     ;wait for a specific
                                 ;string
   .
   .
   .
```

```
_cancel:                          ;control goes here if
                                  ;ESC hit
TYPE "^M^JOperator cancelled" ;display an error
                                  ;message
```

Command: ON DISCONNECT

Action: Specify a command to be executed if a connection is lost. Its action will occur only if there has been a previous SET DISCONNECT ON command.

Format: ON DISCONNECT [command]

Parameters:

command:	command to execute. If no command is specified, DISCONNECT is disabled (the same as if SET DISCONNECT OFF was executed).

Example:

```
SET DISCONNECT ON                ;enable DISCONNECT
                                 ;operation
ON DISCONNECT GOTO _disconnect   ;what to do if ESC
                                 ;hit
WAIT STRING "Enter password"     ;wait for a
                                 ;specific string
    .
    .
    .
 _disconnect:                    ;control goes here
                                 ;if end of
                                 ;connection
TYPE "^M^JConnection lost"       ;display an error
                                 ;message
```

Command: ON ERROR

Action: Specify a command to be executed if $ERROR is set to a non-zero value by another command. The ON ERROR command will not set $ERROR to zero before the next command is executed, nor will it cause the associated command to be executed if $ERROR was non-zero when the ON ERROR is executed.

Format: ON ERROR [command]

Parameters:

command: command to execute if an error occurs. If no command is specified, ON ERROR processing is disabled.

Example:

```
ON ERROR GOTO _error
    .
    .
    .
_error:
TYPE "An error has occurred"
```

Command: ON RECEIVE

Action: Specify a command to execute if the specified string is received during a wait or receive operation.

Format: ON RECEIVE string [command]

Parameters:

string:	string containing characters that if received causes the command to be executed
command:	command to execute. If none, ON RECEIVE is disabled.

Example:

```
ON RECEIVE "Enter password" CALL sendPW
WAIT STRING "Enter selection" ;wait for this string
                              ;but send our
                              ;password if "Enter
                              ;password" string is
                              ;received.

END
sendPW:                       ;subroutine to send
SEND STRING "MYPASSWORD^M"    ;our password
```

```
RETURN
```

Command: ON TIMEOUT

Action: Specify a command to be executed if a timeout occurs while processing a wait or receive command. The command will be executed only if TIMEOUT has been set with a SET TIMEOUT value command.

Format: ON TIMEOUT [command]

Parameters:

command: command to execute. If no command is specified, TIMEOUT is disabled (the same as if SET TIMEOUT OFF was executed).

Example:

```
SET TIMEOUT 60                  ;enable 60-second
                                ;TIMEOUT
ON TIMEOUT GOTO _timeout        ;what to do if
                                ;timeout occurs
WAIT STRING "Enter password"    ;wait for a specific
                                ;string
   .
   .
   .
_timeout:                       ;control goes here if
                                ;timeout
TYPE "^M^JTimeout"              ;display an error
                                ;message
```

Command: OPEN

Action: Open a file. A "FILE NOT FOUND" error is generated if the file does not exist unless the "C" (create) option is used.

Format: OPEN n filename [attributes]

Parameters:

n:	a file number (1 - 9); file numbers are valid during the execution of all scripts in a series of linked scripts. It is best to explicitly close each open file with a CLOSE command, although all open files will automatically be closed at the end of script execution.
filename:	string containing the name of the file to open.
attributes:	an optional string containing a combination of the following: R = read-only W = read/write S = sharable C= create file if it does not already exist The default is non-sharable read/write.

Example 1:

```
OPEN 2 "file1" "SW"     ;open a shareable file
named "file1"
```

Example 2:

```
STRING filename[12]
Type "Examine which file?"
INPUT filename      ;let user enter a filename
OPEN 3 filename     ;open the file
```

Command: PRINT FILE

Action: Print a file to the current printer.

Format: PRINT FILE filename

Parameters:

filename: string containing name of the file to be printed.
Example:

```
STRING filename[80]
filename = "C:\AW\TEST.SCR"
PRINT FILE filename     ;print TEST.SCR
```

Command: PRINT LINE

Action: Print a string. After the string is printed, the contents of $TLINEEND is also printed.. $TLINEEND defaults to a carriage return and line feed.

Format: PRINT LINE string

Parameters:

string: string containing data to be printed.

Example:

```
PRINT LINE "abc"  ;"abc" is printed followed by
                  ;$tlineend, which defaults to
                  ;CR/LF
```

Command: PRINT STRING

Action: Print a string. Note that unlike the PRINT LINE command, only the characters that are part of the string will be printed..

Format: PRINT STRING string

Parameters:

string: string containing data to be printed.

Example:

```
PRINT STRING "abc^M^J"  ;"abc" is printed followed
                        ;by CR/LF
```

Command: PRINTER

Action: Turn simultaneous print on/off. If on, data output to the screen in the following situations is also sent to the printer (this includes all screen sequences that may be used to perform special functions on the screen, such as positioning the cursor and setting attributes):

- data received when ECHO is ON
- output from all TYPE commands
- data received in TERMINAL mode after PRINTER ON

Format: PRINTER ON | OFF

Example:

```
PRINTER ON
TYPE STRING "This goes to the screen and the
printer.^M^J"
PRINTER OFF
TYPE STRING "This goes to the screen only.^M^J"
```

Command: RD

Action: Remove a directory.

Format: RD pathname

Parameters:

pathname:	string containing the name of the directory to remove.

Example:

```
RD C:\TEST
```

Command: READ LINE

Action: Read a line from a file. A line can be specified as a specific number of characters, or until an end-of-line character is read. The default is to read until the data in the $RLINEEND variable is read. This variable default to CR and LF.

Format: READ LINE n destination [length [term_char]]

Parameters:

n:	file number (1-9)
destination:	string variable where the data is to be stored. The terminating characters will not be included in the destination variable.
length:	optional integer specifying the maximum number of characters to read. The default maximum length is the size of the string variable.
term_char:	optional integer specifying a line terminator. The default terminator is the $RLINEEND string variable. Note that in order to specify a term_char, you must also specify a length.
$RESULT:	I>= 0: the number of bytes read. < 0: error (-12 = end of file). Note that EOF is not considered an error.

Example:

Type file named "datafile" by reading and typing one line at a time:

```
STRING data[132]              ;type a file, one line
                              ;at a time
OPEN 1 "datafile"             ;open a file
_loop:
READ LINE 1 data              ;read a line
IF ($RESULT < 0) GOTO _done;if end of file, we're
                              ;done
TYPE LINE data                ;else type the line
GOTO _loop                    ;and get another
_done:
CLOSE 1                       ;done, so close the file
```

Command: READ STRING

Action: Read a string from a file until a specified number of characters are read.

Format: READ STRING n destination [length]

Parameters:

n:	file number (1-9).
destination:	string variable where the file data is to be stored.
length:	optional integer defining the number of characters to read. The default is the size of the string variable.
$RESULT:	when >= 0, numbers of characters read.

Example:

```
STRING data[80]          ;define a string variable
OPEN 3 "datafile"        ;open a file
READ STRING 3 data       ;read 80 bytes
READ STRING 3 data 10    ;read 10 more bytes
CLOSE 3                  ;close the file
```

Command: RECEIVE CHAR

Action: Receive a single byte from the communication port.

Format: RECEIVE CHAR char [timeout]

Parameters:

char:	integer or string variable where the received code is to be stored. If it is a string variable, the code will be saved as the first character of the string.
timeout:	optional integer defining a timeout value (in seconds). If this parameter is omitted and the TIMEOUT value is not 0, the current TIMEOUT value will be used.

Example:

Receive data and display until 10 second timeout occurs:

```
STRING char[1]
ON TIMEOUT GOTO _timeout    ;set timeout handler
_loop:
RECEIVE CHAR char 10        ;wait 10 seconds for a
                            ;character
TYPE char                   ;display it
GOTO _loop                  ;get another
_timeout:
TYPE "^M^JTimeout"          ;timeout occurred
```

Command: RECEIVE CLEAR

Action: Clear the receive buffer of any received data not yet read with other RECEIVE commands.

Format: RECEIVE CLEAR

Example:

```
RECEIVE CLEAR              ;clear data already
                           ;received
RECEIVE STRING s1 10       ;receive the next 10
                           ;characters
```

Command: RECEIVE FILE

Action: Receive a file using the current protocol. A file transfer status screen is displayed to show the progress of the transfer. The protocol can be set with the SET PROTOCOL command.

Format: RECEIVE FILE filename

Parameters:

filename:	string containing the name of the file to receive or the path where the file should be received. Some protocols do not allow you to specify a filename, since part of the protocol dictates that the sender informs the receiving machine what filename to use.

Example:

```
SET PROTOCOL XMODEM
RECEIVE FILE "file1" ;receive file1 via XMODEM
protocol
```

Command: RECEIVE LINE

Action: Receive a string from the communications port. A RECEIVE LINE is terminated by receiving the sequence of codes contained in the $rlineend string (if no end character is specified in the RECEIVE LINE command) or by the size of the destination string variable if no length is specified. A timeout value can also be specified.

Format: RECEIVE LINE destination [maxlen [end_char [timeout]]]

Parameters:

destination:	string variable where the received data is to be stored.
maxlen:	optional integer defining the maximum number of characters to receive. The default value is the size of the string variable.
end_char:	optional integer defining the character used to determine the end of the line. The default is the contents of $RLINEEND.
timeout:	optional integer defining a timeout value (in seconds) Note that if timeout is specified, so must end_char; and if end_char is specified, so must a maxlen value.
$RESULT:	when >= 0, length of received string.

Example:

```
STRING s1[80]
RECEIVE LINE s1             ;receive 80 characters
                            ;or until $RLINEEND
RECEIVE LINE s1 80 13       ;receive 80 characters
                            ;or until a CR
RECEIVE LINE s1 80 13 20    ;same, except timeout
                            ;after 20 seconds
```

Command: RECEIVE STRING

Action: Receive a string from the communications port. A string is terminated by a specified length (or the size of the destination string variable). A timeout value can also be specified.

Format: RECEIVE STRING destination [length] [timeout]

Parameters:

destination:	string variable where the data should be stored.
length:	optional integer specifying how many characters to receive (the default is the size of the destination variable).
timeout:	optional integer defining a timeout value (in seconds). Note that if a timeout value is specified, a length must also be included.
$RESULT:	when >= 0, length of received string.

Example:

```
STRING s1[80]
RECEIVE STRING s1        ;receive 80 characters
RECEIVE LINE s1 50       ;receive 50 characters
RECEIVE LINE s1 50 10    ;receive 50 characters or
                         ;timeout after 10 seconds
```

Command: REN

Action: Rename a file.

Format: REN oldfilename newfilename

Parameters:

oldfilename: string containing original filename.
newfilename: string containing the new filename.

Example 1:

```
STRING newName[12]
newName = "FILENAME.NEW"      ;this is the new name
REN "FILENAME.OLD" newName    ;rename the file
```

Example 2:

```
REN FILENAME.OLD FILENAME.NEW
```

Command: RESET

Action: Reset the terminal emulation The screen is cleared and the video attribute is reset to normal. Special modes such as simultaneous print and monitor are turned off.

Format: RESET

Example:

```
STRING inkey[1]
TYPE "Press a key to return to terminal mode.."
INPUT KEY inkey       ;get a key
RESET                 ;reset emulation
TERMINAL              ;go to terminal mode
```

Command: RETURN

Action: End a subroutine and pass control to the line following the call to this subroutine from the calling script file.

Format: RETURN [return_code]

Parameters:

return_code: optional integer that is stored in $RESULT.
$RESULT: return_code or 0 if no return_code specified.

Example:

```
STRING s[10]            ;this script outputs "HELLO,
                        ;WORLD"
s = "HELLO, "
GOSUB display
s = "WORLD"
GOSUB display
END
_display:
TYPE s
RETURN
```

Command: RUN

Action: Run a DOS program. Note that not all programs will be able to run because of limited memory availability.

Format: RUN command_line

Parameters:

command_line:	string containing DOS command line to execute. Note that double quotes need to surround the command line if command line arguments other than the program name are used. In other words, the RUN command only takes one argument, so multiple command arguments need the quotes to appear as a single string.
$RESULT:	set to DOS ERRORLEVEL code.

Example 1:

```
RUN "DIR *.*"       ;a current directory is displayed
```

Example 2:

```
RUN DIR             ;a current directory is displayed
```

Example 3:

```
STRING s[80]
s = "DIR *.*"
RUN s               ;a current directory is displayed
```

Command: SCREEN RESTORE

Action: Restore a previously saved screen image.

Format: SCREEN RESTORE

Example:

```
SCREEN SAVE             ;save screen contents
CLEAR SCREEN            ;clear the screen
SCREEN RESTORE          ;put screen back as it was
```

Command: SCREEN SAVE

Action: Save the screen so that it can be restored later. This command may be useful, for example, if your script needs to display some sort of message after detecting some error condition, but needs to restore the previous image after the appropriate actions have been completed..

Format: SCREEN SAVE

Example:

```
SCREEN SAVE             ;save screen contents
CLEAR SCREEN            ;clear the screen
SCREEN RESTORE          ;put screen back the way it
was
```

Command: SCRIPT

Action: Pass control to another script, contained in a separate file. When that script terminates, script execution resumes at the line following the SCRIPT command. Note that scripts can be nested to 10 levels.

Format: SCRIPT script_name

Parameters:

script_name:	string containing the name of the script to execute. Do not include a filename extension.
$RESULT:	When control returned, $RESULT has the return code from the called script.

Example:

SCRIPT1 outputs "HELLO, WORLD" by calling SCRIPT2 to output a string. Assume that SCRIPT1 is in file SCRIPT1.SCR and SCRIPT2 is in file SCRIPT2.SCR.

```
SCRIPT1:
   STRING $1[10]       ;define a global string
                       ;variable
   $1 = "HELLO, "
   SCRIPT script2      ;use script2 to output
   $1 = "WORLD"
   SCRIPT script2      ;use script2 to output
END

SCRIPT2:               ;this script displays whatever
   STRING $1[10]       ;is in the global variable $1
   TYPE $1
END
```

Command: SEEK

Action: Set a file's read/write pointer. A subsequent READ or WRITE operation will occur at this location within the file.

Format: SEEK n offset option

Parameters:

n:	file number (1-9) of a previously OPENed file.
offset:	integer representing an offset into the file, based upon the 'option' parameter.
option:	integer defining how to interpret the offset. 0 = seek to beginning of file + offset 1 = seek from current position + offset 2 = seek to end of file + offset
$RESULT:	>= 0, new offset within file. < 0 if an error occurred.

Example:

Open a file to prepare to append new data to the end of the file.

```
OPEN 1 "logfile.dat" ;open file logfile.dat
SEEK 1 0 2           ;position to end of file
```

Command: SEND CHAR

Action: Send a single character using the current communications device.

Format: SEND CHAR char

Parameters:

char: integer or string containing the code to send. If string is specified, only the first character of the string is sent.

Example:

```
STRING s[10]
s = "ABC"
SEND CHAR 13          ;send a CR code
SEND CHAR s           ;send an "A"
```

Command: SEND CLEAR

Action: Clear send buffer. This ensures that there is no data waiting to be transmitted. Data can be in the send buffer if the communications rate is slow (such as a low serial data rate) or if communications is halted because of a flow control or error recovery situation.

Format: SEND CLEAR

Example:

Send a command to display some data to a timesharing system. Assuming that the data will all have been sent when 5 seconds of silence pass, the script clears the send buffer. If the command never made it out the communications device, the SEND CLEAR will then kill the send data from being sent.

```
SEND STRING "Display^M" ;command to timeshare
                        ;system
WAIT SILENCE 5          ;wait for 5 seconds of
                        ;silence
SEND CLEAR              ;insure nothing left in
                        ;send buffer
```

Command: SEND FILE

Action: Send a file using the current protocol. A file transfer status screen is displayed to show the progress of the transfer. The protocol can be set with the SET PROTOCOL command.

Format: SEND FILE filename

Parameters:

filename:	string containing the name of the file to send. For multi-file protocols, the name may contain wild-card characters (? or *).

Example:

```
SET PROTOCOL XMODEM
SEND FILE "file1"    ;send file1 using XMODEM
                     ;protocol
```

Command: SEND LINE

Action: Send a string through the current communications device, followed by the contents of the variable $SLINEEND (which defaults to "^M").

Format: SEND LINE string

Parameters:

string: string containing the data to send.
$RESULT: when >= 0: number of characters sent.

Example 1:

```
SEND LINE "ABC"     ;sends "ABC" followed by
                    ;$SLINEEND
```

Example 2:

```
STRING s[3]
s = "ABC"
SEND LINE s         ;also sends "ABC" followed by
                    ;$SLINEEND
```

Command: SEND SCANCODE

Action: Send a string through the current communication device but translate each character to one or more IBM scan codes. These scan codes represent the codes that an IBM PC keyboard sends to the CPU. This command can be used if you are communicating with a Norton pcANYWHERE host that is expecting IBM scan codes instead of ASCII.

Format: SEND SCANCODE string [length]

Parameters:

string: string containing the data to send.
length: optional integer that is the count of characters to send. The default is the size of the string.
$RESULT: when >= 0: the number of characters sent.

Example:

```
SEND SCANCODE "DIR^M"    ;send codes for D, I, R,
                         ;Ctrl, M
```

Command: SEND STRING

Action: Send a string through the communications port. The entire string is transmitted unless a "length" parameter is specified. No termination codes are sent.

Format: SEND STRING string [length]

Parameters:

string:	string containing data to send.
length:	optional integer representing the count of characters to send. The default is the length of the string.
$RESULT:	number of characters sent.

Example:

```
STRING crlf[2]          ;this script sends "Hello"
s = "^M^J"              ;followed by a CR/LF
SEND STRING "Hello"
SEND STRING s
```

Command: SET ATTRIBUTE

Action: Set the screen attribute (color) for subsequent characters output to the screen. Attributes 1 through 7 are cumulative. That is to say, if you set attribute 1 (intense) then attribute 5 (blink) you will end up with intense blinking characters for subsequent output. Use attribute 0 to turn off the effects of 1 through 7, or use attributes 22 through 27 to selectively disable the corresponding attribute. Attributes 0 through 27 are normally not used when you are setting colors with attributes 30 through 47. Attribute 0, normal video, sets light gray characters on a black background.

Format: SET ATTRIBUTE attribute

Parameters:

attribute: integer representing the attribute to set:
(fg=foreground, bg=background)
0 = normal
1 = intense   22 = intense off
4 = underline   24 = underline off
5 = blink   25 = blink off
7 = reverse   27 = reverse off
30 = black fg   40 = black bg
31 = red fg   41 = red bg
32 = green fg   42 = green bg
33 = brown fg   43 = brown bg
34 = blue fg   44 = blue bg
35 = magenta fg   45 = magenta bg
36 = cyan fg   46 = cyan bg
37 = light gray fg   47 = light gray bg

Example:

```
SET ATTRIBUTE 30
SET ATTRIBUTE 41
TYPE "This is displayed black on red.^M^J"
SET ATTRIBUTE 44
TYPE "And this is black on blue.^M^J"
SET ATTRIBUTE 5
TYPE "And this is blinking."
```

Command: SET CANCEL

Action: Set the state of operator cancel monitoring. When enabled, wait or receive commands are terminated if the operator presses the **<Esc>** key. If an ON CANCEL command is active when the operator presses **<Esc>**, that command is then executed; otherwise, control passes to the next script command.

Format: SET CANCEL OFF | ON

Example:

```
TYPE "Waiting 5 seconds; press ESC to continue..."
SET CANCEL ON
WAIT TIME 5     ;wait 5 seconds or until user
                ;presses ESC
SET CANCEL OFF
Type "Pausing for 5 seconds; please wait..."
WAIT TIME 5     ;wait 5 seconds; no ESC allowed
```

Command: SET CHARDELAY

Action: Set default between-character delay. The SEND STRING and SEND LINE commands will insert this delay between each character sent. For most applications, delays are not necessary, but some mainframes require that data be sent closer to “typing” speed.

Format: SET CHARDELAY delay_value

Parameters:

delay_value: integer delay value (in 10ths of a second)

Example:

```
SET CHARDELAY 1             ;1/10 second delays
SEND STRING "Hello, there" ;between characters
SET CHARDELAY 0             ;eliminate delay
```

Command: SET DISCONNECT

Action: Set the state of disconnect monitoring. When enabled, WAIT or RECEIVE commands are terminated if the connection is lost. When a connection is lost (such as DCD drop on serial ports) and an ON DISCONNECT command is active, that command is then executed. Otherwise, control passes to the next script command after WAIT or RECEIVE.

Format: SET DISCONNECT OFF | ON

Example:

```
ON DISCONNECT GOTO _endConnection
SET DISCONNECT ON
WAIT TIME 5                        ;wait 5 seconds or
                                   ;until connection lost
SET DISCONNECT OFF
WAIT TIME 5                        ;wait 5 seconds;don't
                                   ;check connection loss
    .
    .
    .
_endConnection:
TYPE "Connection lost"             ;here if connection lost
                                   ;during first 5 seconds
```

Command: SET DTR

Action: Set the state of the RS-232 DTR signal.

Format: SET DTR OFF | ON

Example:

```
SET DTR OFF
WAIT TIME 1         ;lower DTR signal for 1 second
SET DTR ON          ;then raise it again
```

Command: SET ECHO

Action: Set state of echoing of data received during wait and receive commands. If ON, the received data is displayed on the screen.

Format: SET ECHO OFF | ON

Example:

```
SET ECHO ON
WAIT TIME 5 ;wait 5 seconds and display received
            ;data
SET ECHO OFF
WAIT TIME 5 ;wait 5 seconds but do not display
            ;received data
```

Command: SET FILE ATTR

Action: Set the file attribute for a specified file.

Format: SET FILE ATTR filename new_attribute

Parameters:

filename: string containing the name of the file (which must not currently be OPENed).
new_attribute: integer containing the new attribute value. The attribute is an integer mapped as follows:
bit 0: set if read-only
bit 1: set if hidden
bit 2: set if a system file
bit 3: set if a volume label
bit 4: set if a subdirectory
bit 5: archive bit; set if file is written to

Example:

```
SET FILE ATTR "myfile" 0x20 ;set ARCHIVE file
                            ;attribute for "myfile"
```

Command: SET FILE DATE

Action: Set the date for a file.

Format: SET FILE DATE filename new_date

Parameters:

filename: string containing the name of the file (which

must not be currently OPENed).
new_date: integer with the date to set, in the format YYMMDD.

Example:

```
SET FILE DATE "myfile" 911110 ;set file date to
                              ;11/10/91
```

Command: SET FILE SIZE

Action: Set the size of a file.

Format: SET FILE SIZE filename new_size
Parameters:

filename: string containing the name of the file (which must not be currently OPENed).
new_size: integer or string containing the new file size

Example 1:

```
SET FILE SIZE "myfile" 1024   ;set file size to
                              ;1024
```

Example 2:

```
STRING size
size = "1024"
SET FILE SIZE "myfile" size   ;set file size to
                              ;1024
```

Command: SET FILE TIME

Action: Set the time for a file.

Format: SET FILE TIME filename new_time

Parameters:

filename: string containing the name of the file (which must not be currently OPENed.)
new_time: integer with the time to set, in the format HHMM.

Example:

```
SET FILE TIME "myfile" 0800        ;set file time to
                                   ;8:00 A.M.
```

Command: SET FLOW

Action: Set flow control to none, XON/XOFF, RTS/CTS, or both. XON/XOFF is commonly known as software flow control, and RTS/CTS is known as hardware flow control. The SET FLOW command is generally used only for serial connections.

Format: SET FLOW NONE | XONXOFF | RTSCTS | BOTH

Example:

```
SET FLOW RTSCTS      ;set hardware flow control
```

Command: SET IGNORECASE

Action: Set state of checking for case when comparing strings. The default is OFF (which means string comparisons are case-sensitive).

Format: SET IGNORECASE OFF | ON

Example:

```
SET IGNORECASE ON
STRCMP "abc" "ABC"    ;$RESULT will be set to 0
SET IGNORECASE OFF
STRCMP "abc" "ABC"    ;$RESULT will not be set to 0
```

Command: SET PALETTE

Action: Set a screen palette attribute. The screen palettes are the colors used by Norton pcANYWHERE to display its menus and other information windows. Each palette is controlled by three attributes: normal, intense, reverse. This command is used to designate what color combination (foreground/ background) will be used for each of the types of menus and windows within Norton pcANYWHERE. Values set in a script file will remain in effect until Norton pcANYWHERE is exited to DOS.

Format: SET PALETTE palette_number attribute

Parameters:

palette_number: integer specifying the palette entry to change

3, 4, 5 = menu window attribute: normal, intense, reverse
6, 7, 8 = yes/no window attribute: normal, intense, reverse
12, 13, 14 = error window attribute: normal, intense, reverse
15, 16, 17 = help window attribute: normal, intense, reverse
18, 19, 20 = status window attribute: normal, intense, reverse
24, 25, 26 = terminal mode attribute: normal, intense, reverse
27, 28, 29 = forms window attribute: normal, intense, reverse

attribute: the color value to use. Each color is made up of a hexadecimal value whose lower nibble is the foreground color and whose upper nibble is the background color. Color values are:

0 - black
1 - blue
2 - green
3 - cyan
4 - red
5 - magenta
6 - brown
7 - lt grey

8 - dark grey
9 - light blue
A - light green
B - light cyan
C - light red
D - light magenta
E - yellow
F - white

(8-F can only be used as foreground colors)

Example:

```
SET PALETTE 24 0x71      ;set terminal mode normal
                         ;to blue on light grey
```

Command: SET PARITY

Action: Set character parity. Used for serial devices only.

Format: SET PARITY NONE | EVEN | ODD | MARK | SPACE

Example:

```
SET PARITY EVEN      ;set even parity
```

Command: SET PROTOCOL

Action: Set a file transfer protocol to be used for subsequent SEND FILE and RECEIVE FILE commands.

Format: SET PROTOCOL XMODEM | XMODEM-CRC | XMODEM-1K | XMODEM-1KG | YMODEM | YMODEM-G | ZMODEM | KERMIT | ASCII

Example:

```
SET PROTOCOL ZMODEM
```

Command: SET QUIET

Action: Set state of displaying data to the screen. If quiet mode is on, commands that normally output to the screen will not display anything. (DIR, RECEIVE with echo on, TYPE, WAIT with echo on, SEND FILE , RECEIVE FILE).

Format: SET QUIET OFF | ON

Example:

```
SET QUIET ON    ;directory is NOT displayed, but
DIR *.*         ;$RESULT is set to the count
                ;of files
```

Command: SET RECORD

Action: Turn recording mode on/off. When on, all received data is written to the current recording file.

Format: SET RECORD OFF | ON

Example:

Send a command to the host computer. Then record all data received until there are ten seconds of silence.

```
SET RECORD ON          ;record mode on
SEND STRING "LIST^M" ;send list command to host
WAIT SILENCE 10        ;record until 10 seconds of
                       ;silence
SET RECORD OFF         ;record mode off
```

Command: SET RTS

Action: Set the state of the RS-232 RTS signal. Used for serial connections only.

Format: SET RTS OFF | ON

Example:

```
SET RTS OFF
WAIT TIME 1         ;lower RTS signal for 1 second
SET RTS ON          ;then raise it again
```

Command: SET SPEED

Action: Set speed (bps) of the communications port. This command is for serial devices only.

Format: SET SPEED baud_value

Parameters:

baud_value:	integer specifying a speed. Valid values are: 75, 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, or 115200.

Example:

```
SET PORT 1              ;select com1
SET SPEED 9600          ;and set speed to 9600 bps
```

Command: SET TIMEOUT

Action: Set default timeout value for RECEIVE and WAIT commands. If an ON TIMEOUT command has been set, that command is executed if the timeout occurs during a WAIT or RECEIVE command. Setting TIMEOUT to 0 turns off the default timeout value for RECEIVE and WAIT commands.

Format: SET TIMEOUT timeout_value

Parameters:

timeout_value: int or int_var

Example:

```
SET TIMEOUT 60                ;set a 60-second
                              ;timeout
ON TIMEOUT GOTO _timeout      ;set timeout
                              ;processing
WAIT STRING "Enter password:" ;wait 60 seconds for
                              ;password prompt
   .
   .
   .
_timeout:                     ;here if no prompt
                              ;within 60 seconds
TYPE STRING "No password prompt received."
```

Command: SET TRANSLATION

Action: Turn use of the translation tables on/off. When enabled, all transmitted and received data are translated according to the values in the currently loaded translation tables.

Format: SET TRANSLATION OFF | ON

Example:

```
LOAD TRANSLATION "EBCDIC"      ;load translation
                               ;table
SET TRANSLATION ON             ;and enable its usage
SEND STRING "Translate this"   ;translate and send
                               ;this string
SET TRANSLATION OFF            ;disable translations
SEND STRING ", but not this"   ;send this string as
                               ;is
```

Command: STRCAT

Action: Concatenate a string onto the end of another string. If the destination string is not large enough for the combination of the two strings, the result will be truncated to the length of the destination.

Format: STRCAT destination source

Parameters:

destination:	string variable where the result is to be stored.
source:	string to be added to the destination.
$RESULT:	length of the resulting string.

Example:

```
STRING string1[10]
string1 = "12345"  ;set string1 to "12345"
STRCAT string1 "ABCDEFG"   ;string1 will be
"12345ABCDE"
```

Command: STRCMP

Action: Compare two strings. $RESULT is set to the result of the comparison: 0 if equal, -1 if the first string is alphabetically before the second string, +1 if the second string is before the first string. Note that case is ignored only if SET IGNORECASE ON has been set.

Format: STRCMP string1 string2 [length]

Parameters:

string1:	string containing the first string to be compared.
string2:	string containing the second string to be compared.
length:	optional integer containing the number of characters to be compared. The default is the entire string.
$RESULT:	0: strings are the same -1: string 1 alphabetically before string 2 1: string 1 alphabetically after string 2

Example 1:

```
STRING s1[3]
STRING s2[3]
s1 = "ABC"
s2 = "DEF"
STRCMP s1 s2          ;$result is set to -1
```

Example 2:

```
STRCMP "AB" "ABC"     ;$result is set to -1
```

Example 3:

```
STRCMP "abc" "ABC"    ;$result is set to 1
```

Example 4:

```
SET IGNORECASE ON
STRCMP "abc" "ABC"    ;$result is set to 0
```

Command: STRLEN

Action: Get the length of a string.

Format: STRLEN source [length]

Parameters:

source:	string whose length is to be determined.
length:	optional integer variable where the length is to be stored.
$RESULT:	length also stored here.

Example 1:

```
STRING s1[80]
INTEGER length
s1 = "ABC"
STRLEN s1 length  ;length and $result are set to 3
```

Example 2:

```
STRLEN "ABC"      ;$result is set to 3
```

Command: STRSET

Action: Fill a string variable with a value.

Format: STRSET source length value

Parameters:

source:	string variable to be set.
length:	integer specifying the new length of the string.
value:	integer or string containing the value to store into each position of the string. If a string is specified, only the first character will be used to fill the source string.

Example:

```
STRING s[10]
s = "HELLO"
STRSET s 3 65        ;s is set to "AAA" because 65
                     ;is the ASCII value for "A"
STRSET s 5 "TODAY"   ;s is set to "TTTTT"
```

Command: SUBSTR

Action: Extract a portion of a string and store into a string variable. The starting position within the source string and the number of characters to copy are specified.

Format: SUBSTR source start length destination

Parameters:

source:	string from which a portion is to be copied.
start:	integer specifying the starting position within the source string. The first position is 1.
length:	integer specifying how many characters to copy.
destination:	string variable where the data is to be copied.
$RESULT:	length of resulting string.

Example:

```
STRING s1[50]
SUBSTR "ABCDEF" 2 3 s1          ;s1 gets set to "BCD"
```

Command: TERMINAL

Action: Go into terminal emulation mode. Any port or terminal parameters (such as speed, printer on, recording) remain in effect. When terminal mode is ended, the current script gets control at the next command.

Format: TERMINAL
Example:

```
TERMINAL                               ;go into
                                       ;terminal mode
TYPE STRING "End of terminal mode"     ;control comes
                                       ;here
```

Command: TRIM

Action: Trim leading and trailing spaces and control codes from a string. This includes all ASCII character codes; less than or equal to decimal 32.

Format: TRIM source

Parameters:

source: string variable containing the string to be trimmed.

$RESULT: resulting length.

Example:

```
STRING s[10]
s = "   ABC    "
TRIM s          ;s now is "ABC"
```

Command: TYPE FILE

Action: Type a file to the screen. The user can cancel the output by pressing **<Esc>.** The output can be paused by pressing <Ctrl>-<S>. Restart by pressing any other key.

Format: TYPE FILE filename

Parameters:

filename: string containing the name of the file to display

Example:

```
TYPE FILE "READ.ME"  ;output the file to the screen
```

Command: TYPE LINE

Action: Output a string to the screen, then output the string $TLINEEND (which defaults to a CR and LF code).

Format: TYPE LINE string

Parameters:

string:	string to be displayed.
$RESULT:	set to the number of characters output.

Example:

```
TYPE LINE "One"       ;each of these will be
TYPE LINE "Two"       ;on a separate line if
TYPE LINE "Three"     ;$TLINEEND is still set to
                      ;"^M^J"
```

Command: TYPE STRING

Action: Output a string to the screen.

Format: TYPE [STRING] string

Parameters:

string:	string to display on the screen
$RESULT:	set to the number of characters output

Example 1:

```
TYPE STRING "One"
TYPE STRING "Two"
TYPE STRING "Three"  ;display shows "OneTwoThree"
```

Example 2:

```
TYPE STRING "One^M^J"   ;each of these will be on
TYPE STRING "Two^M^J"   ;a separate line
TYPE STRING "Three^M^J"
```

Command: UPPER

Action: Convert a string to all uppercase characters.

Format: UPPER source

Parameters:

source:	string variable containing string to be translated to uppercase. Uppercase characters are not affected.

Example:

```
STRING str[10]
str = "abC"
UPPER str
TYPE str    ;Outputs "ABC"
```

Command: WAIT CARRIER

Action: Wait for the data carrier detect (DCD) signal, signifying that a connection has been made. This command is for use with serial connections only.

Format: WAIT CARRIER [time]

Parameters:

time: optional integer specifying how long to wait for the connection

Example:

```
ON TIMEOUT GOTO _timeout
WAIT CARRIER 300       ;wait 5 minutes for a
                       ;connection
TYPE STRING "Connection established"
   .
   .
   .
_timeout:
TYPE STRING "Timeout"
```

Command: WAIT RECEIVE

Action: Wait for any character to be received from the communications device. If an ON TIMEOUT command is active, the associated command will be executed if this command times out.

Format: WAIT RECEIVE [timeout]

Parameters:

timeout: optional integer specifying a timeout value (in seconds). If none specified, the current default timeout value is used. Note, if the current default TIMEOUT is 0, this command will not time out.

Example:

```
WAIT RECEIVE 60                         ;wait 60
                                        ;seconds for
                                        ;any receive code
IF ($RESULT == -4) GOTO _timeout ;branch if timeout
IF ($RESULT != 0) GOTO _error    ;branch if some
                                        ;other error
      .                                 ;continue
      .                                 ;processing
      .
_timeout:
TYPE STRING "Timeout"
      .
      .
      .
_error:
TYPE STRING "Error!"
```

Command: WAIT SILENCE

Action: Wait for silence on the receive communication line for a specified amount of time. During this time received data is read and may be displayed (if ECHO is on), recorded (if RECORDING is on), or checked for matching the ON RECEIVE string (if enabled).

Format: WAIT SILENCE [time]

Parameters:

time:	optional integer specifying the number of seconds of silence to wait. The default is $TIMEOUT, which is set with the SET TIMEOUT command.

Example:

```
WAIT SILENCE 5        ;wait for 5 seconds of silence
```

Command: WAIT STRING

Action: Wait for a string to be received. Case-sensitivity is based upon the state of $IGNORECASE, which can be set with the SET IGNORECASE command. During this time received data is read and may be displayed (if ECHO is on), recorded (if RECORDING is on), or checked for matching the ON RECEIVE string (if enabled).

Format: WAIT STRING string [time]

Parameters:

string:	string containing the data to wait for
time:	optional integer specifying the number of seconds to wait. The default is $TIMEOUT, which can be set via the SET TIMEOUT command.

Example:

```
WAIT STRING "Enter password:" 10 ;wait up to 10
                                 ;seconds for a
                                 ;password prompt
```

Command: WAIT TIME

Action: Wait for a specific amount of time. During this time received data is read and may be displayed (if ECHO is on), recorded (if RECORDING is on), or checked for matching the ON RECEIVE string (if enabled).

Format: WAIT [TIME] time

Parameters:

time: integer specifying the number of seconds to wait.

Example:

```
SET ECHO ON
WAIT TIME 60    ;display received data for 60
                ;seconds
```

Command: WAIT UNTIL

Action: Wait for a specific time and date. During this time received data is read and may be displayed (if ECHO is on), recorded (if RECORDING is on), or checked for matching the ON RECEIVE string (if enabled).

Format: WAIT UNTIL time [date]

Parameters:

time: integer containing the time to wait for. The time is in the format HHMM.

date: optional integer containing the date to wait for. The date format is YYMMDD.

Example 1:

```
WAIT UNTIL 2240      ;wait until 10:40 P.M.
```

Example 2:

```
INTEGER date
date = 911110
WAIT UNTIL 1200 date ;wait until noon on
                     ;November 10, 1991
```

Command: WINDOW CLOSE

Action: Close a window previously opened with the WINDOW OPEN command.

Format: WINDOW CLOSE win_id

Parameters:

win_id:	integer variable containing a window id (from WINDOW OPEN).

Example:

```
INTEGER win_id
WINDOW OPEN win_id 5 10 10 50 ;open a window
WINDOW CLOSE win_id           ;and immediately
                              ;close it
```

Command: WINDOW OPEN

Action: Open a window on the screen. After the window is opened, all screen commands take effect within the window until a WINDOW SELECT is used to choose another window or until all windows are closed. After opening the window, the cursor is positioned at either row 1, column 1 (no border specified) or row 2, column 2 (single- or double- line border specified). Once the window is opened, you can change the actual colors used for screen output by using the SET ATTRIBUTE command.

Format: WINDOW OPEN win_id row col width height [palette [border]]

Parameters:

win_id:	integer variable where a window ID is to be stored.
row:	integer specifying the row where window starts.
col:	integer specifying the column where window starts.
width:	integer specifying the width of the window (including the border, if any).
height:	integer specifying the height of the window (including the border, if any).
palette:	optional integer specifying a palette number (see SET PALETTE). The default is "terminal mode normal" palette.
border:	optional integer specifying a border type: 0=none, 1=single line, 2=double line. The default is no border.

Example:

```
INTEGER win_id
STRING key[1]
WINDOW OPEN win_id 2 20 40 5 24  1  ;open a 5 x 40
                                    ;window using
                                    ;terminal
                                    ;normal colors
                                    ;with a single-
                                    ;line border at
                                    ;row 2,
                                    ;column 20
CURSOR POSITION 2 2                 ;move cursor to
                                    ;first column,
                                    ;first row
                                    ;within the
                                    ;window
TYPE STRING "This is in the window" ;display a
                                    ;message
INPUT KEY key                       ;wait for a key
                                    ;to be pressed
WINDOW CLOSE win_id                 ;close the
                                    ;window
```

Command: WINDOW SELECT

Action: Select a window. All subsequent screen commands work within the window. This is used when more than window is opened on the screen.

Format: WINDOW SELECT win_id

Parameters:

win_id: integer variable containing window ID to select.

Example:

```
INTEGER win_id1
INTEGER win_id2
WINDOW OPEN win_id1 1 1 20 5  ;open window 1
WINDOW OPEN win_id2 10 1 20 5 ;open window 2
WINDOW SELECT win_id1         ;select window 1
CURSOR POSITION 1 1
TYPE STRING "Window 1"        ;write this in
                              ;window 1
WINDOW SELECT win_id2
CURSOR POSITION 1 1
TYPE STRING "Window 2"        ;write this in
                              ;window 2
```

Command: WRITE LINE

Action: Output a string to a file and append the contents of $TLINEEND (which defaults to CR/LF).

Format: WRITE LINE n source

Parameters:

n:	file number (1-9).
source:	string to be written to the file.
$RESULT:	count of bytes written.

Example:

```
OPEN 1 "myfile"   ;write two lines to myfile
WRITE LINE 1 "line 1"
WRITE LINE 2 "line 2"
CLOSE 1
```

Command: WRITE STRING

Action: Output a string of data to a file.

Format: WRITE STRING n source [length]
Parameters:

n:	file number (1-9).
source:	string to write.
length:	optional integer specifying the number of characters to write. The default is the entire string.
$RESULT:	count of bytes written.

Example:

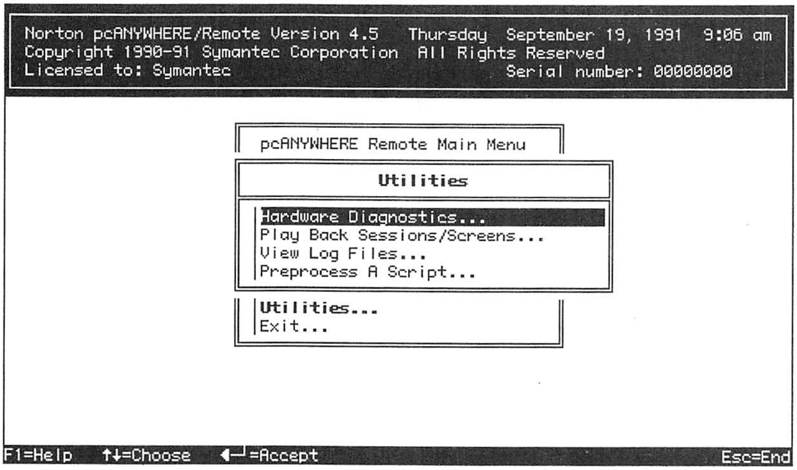
```
OPEN 1 "myfile"      ;open a file
WRITE STRING 1 "line 1 "
WRITE STRING 2 "line 2"
CLOSE 1              ;myfile contains
                     ;"line 1 line 2"
```

9

Utilities

This chapter explains the utilities that come with Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote. You may use some utilities often, because they supplement your normal remote computing activities; others are for special purposes, and you may use them rarely, if ever.

Norton pcANYWHERE/Host's utilities are as follows:



```
Norton pcANYWHERE/Remote Version 4.5   Thursday September 19, 1991  9:06 am
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: Symantec                            Serial number: 00000000
```

You will note that both Norton pcANYWHERE/Host and Norton pcANYWHERE/Remote *Utilities* include *Hardware Diagnostics* and *View Log Files*. These two menu items are identical in the two programs.

- **Hardware Diagnostics.** This utility allows you to see what hardware and software components are installed on your system. Use this utility to test your communications ports, keyboard, and video display.
- **View Log Files.** This program lets you choose from several different report formats to view or print a summary of host or remote calls. In addition, you can delete old log information, or move it to a history file for archiving.

Note

Both remote and host users can create log files to record the time, date, and duration of their sessions, as well as other information. Remote users should see Chapter 6, Norton pcANYWHERE/Remote, and read under the heading **Log session**, in the section **Host Information Fields**. Host users should look at Chapter 5, Norton pcANYWHERE/Host; see the section **Caller Information Fields**, under the heading **Log calls from this caller**.

In addition, Norton pcANYWHERE/Host has a utility called *Modify Terminal Configurations:*

- **Modify Terminal Configurations.** This program allows you to modify the terminal configurations that come with Norton pcANYWHERE/Host, and to create new ones. Using this program, advanced users may set up their systems so that they can communicate with remote users who need to dial into an ANYWHERE host with a non-supported terminal emulation.

Norton pcANYWHERE/Remote, in turn, has a utility specific to its use called *Play Back Session/Screen:*

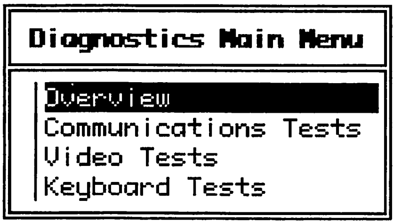
- **Play Back Session/Screen**. This utility permits you to play back recorded remote computing sessions and specific screens you have saved from your sessions.

Note

Remote users can record sessions and screens during an ANYWHERE session or a session with a non-ANYWHERE host. See Chapter 7, Sessions, under the section **Remote Session Options**.

Each Utility is discussed below under a separate heading.

Hardware Diagnostics

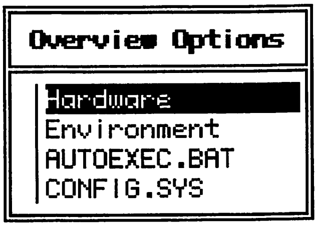


Use this utility to test your hardware configuration or find out which preferences should be selected for your system. It can serve as an information aid when you are planning to use the *Modify Terminal Configurations* option and need more information about your terminal. Some of the tests are particularly useful when you need to call for technical support.

This utility has four options:

- **Overview.** This option allows you to view the status of your system, including BIOS information, communications ports, keyboard, video adapters, and monitor.
- **Communications Tests.** This option tests the hardware configurations stored in your system.
- **Video Tests.** Using the video tests, you can test various aspects of your display adapter.
- **Keyboard Tests.**This series of tests helps you check what codes your keyboard generates, as well as allowing you to test keyboard lights and other features.

OVERVIEW



Hardware

This selection displays a summary of the known hardware devices on your system that may affect Norton pcANYWHERE operation.

Parallel ports

This field shows how many parallel ports are installed on your system.

Serial ports

This field shows how many serial communications ports Norton pcANYWHERE can locate on your system.

Keyboard

This field shows whether you have a Standard or Advanced keyboard on your computer.

Primary video adapter

This field shows the name of your primary *video adapter*, and the amount of RAM.

Secondary video adapter

If you have more than one video adapter, Norton pcANYWHERE displays its name and the amount of RAM.

Environment

This option displays the environment string from your AUTOEXEC.BAT file.

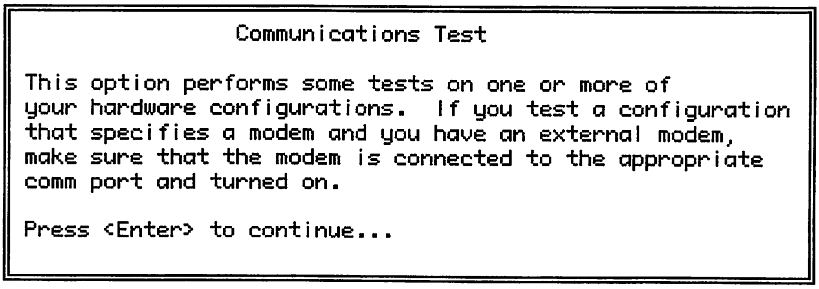
CONFIG.SYS

This option displays the contents of your current CONFIG.SYS file.

AUTOEXEC.BAT

This option displays the contents of your AUTOEXEC.BAT file.

COMMUNICATIONS TESTS



```
                    Communications Test

This option performs some tests on one or more of
your hardware configurations.  If you test a configuration
that specifies a modem and you have an external modem,
make sure that the modem is connected to the appropriate
comm port and turned on.

Press <Enter> to continue...
```

This series of hardware tests allows you to check the configurations that are stored for your system. When you select *Communications Tests* and press ↵, Norton pcANYWHERE displays a reminder: If one of your configurations includes a standalone modem, that modem must be connected to the correct communications port and turned on. Press ↵ to remove the message. Norton pcANYWHERE then lists the names of the current stored configurations.

When you select a configuration name, Norton pcANYWHERE first displays the hardware configuration form for that configuration. When you press **<Esc>**, the test menu, described below, is displayed.

Configuration test

Check Serial Port

This test checks to see that the port specified in the configuration does exist.

Show Status Of Signals

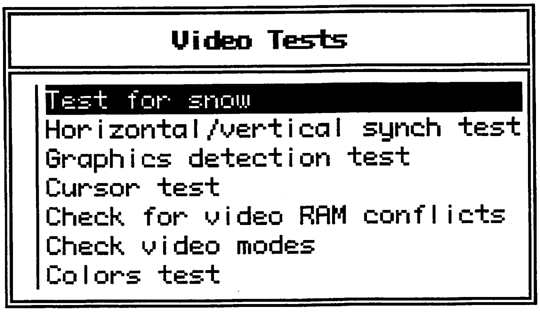
This test shows the current values of some of the RS232 signals on your serial port. If you are not familiar with what the signals mean, just write down the values if you need to call for technical support from Symantec.

Modem Test

This test initializes the modem for auto-answer mode, then turns that mode off. After testing the modem, you might be informed about an inconsistency between signal states and information in the hardware configuration form.

Note
If you don't understand a term used in this section, check the Glossary at the end of the manual, or review Chapter 4, Hardware Configurations.

VIDEO TESTS



This selection allows you to test various aspects of the video display. A message tells you that during the tests, you may be asked to press a key or answer a question about what you see on the screen, and that not all tests are valid for all video displays. When you are through with video testing, press **<Esc>** from the Video Tests menu to see a summary of results.

Test For Snow

Some CGA video adapters can cause snow, or static, on the screen. If your adapter is not a CGA, this test is not run. If the test is run, Norton pcANYWHERE displays the message, *If some pixels are flashing on the screen (called snow), you may want to set the Eliminate snow preference.* Type a y and press ↵ if snow appears on your screen. Norton pcANYWHERE will automatically set the *Eliminate snow* preference to *Yes*.

Horizontal/vertical Synch Test

This test checks the horizontal and vertical adjustment on your video display adapter.

Graphics Detection Test

This test is only run if you have a CGA or Hercules graphics adapter. Normally Norton pcANYWHERE detects graphics, but with some display adapters and some software applications, *Automatic graphics detection* must be set to *Enabled.* This option is a Host preference. If Norton pcANYWHERE indicates that your adapter has *Passed,* you may enable automatic graphics detection for host operation in cases where graphics images do not appear when they should. If your adapter fails this test, enabling automatic graphics detection will not solve problems involving failure to display proper graphics screens.

Cursor Test

This test checks cursor positioning for all types of adapters. During the test, Norton pcANYWHERE prompts you to respond to a series of questions. Type a `y` or an `n`.

Check For Video RAM Conflicts

This test is only run for EGA, VGA, Hercules or MCGA adapters. If there is a video RAM conflict, Norton pcANYWHERE tells you which video mode(s) cannot be run.

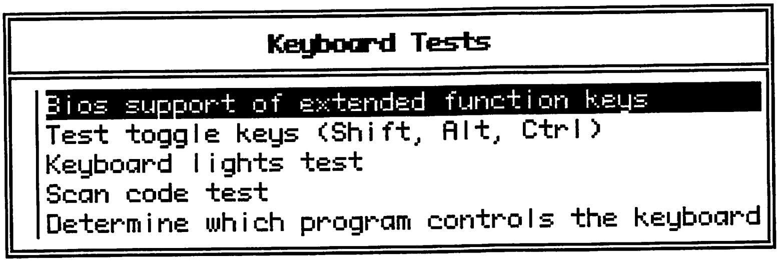
Check Video Modes

This test will check if the video modes (such as 80x25 color, various graphics resolutions, etc.) work properly on your monitor. You will be presented with a series of screens and asked to respond Y or N based on the correctness of the screen. If you do not see anything readable, assume that the mode does not work and press N.

Colors Test

If you have a color adapter, Norton pcANYWHERE displays a color bar, listing the color name next to each color block. You will be asked to verify if the blocks agree with the labels. Note that "LT" in front of a color means "Light". For example, "LTGREEN" means "light green".

KEYBOARD TESTS


Keyboard Tests
Bios support of extended function keys
Test toggle keys (Shift, Alt, Ctrl)
Keyboard lights test
Scan code test
Determine which program controls the keyboard

When you choose *Keyboard Tests* from the hardware diagnostics menu, Norton pcANYWHERE displays the type of keyboard it detects for your system. Norton pcANYWHERE also displays a message telling you that it will be necessary to press some keys during the test.

Each keyboard test is described below. When a test is complete, press **<Esc>** to return to the list of keyboard tests. To review test results, press the **<Esc>** key again.

BIOS Extended Keyboard Support

This test tells you whether or not your system BIOS supports extended keyboard function calls. This information may be useful if you need to speak to technical support personnel.

Test Toggle Keys (Shift, Alt, Ctrl)

When you choose this option, Norton pcANYWHERE asks you to press the **<Shift>**, **<Alt>** and **<Ctrl>** keys individually and in various combinations. The keys are listed beneath the message, with their status displayed (*DEPRESSED* or *NOT DEPRESSED*). When you have completed the test, press **<Esc>**. Norton pcANYWHERE asks you if there were any problems.

Keyboard Lights Test

If you choose this option, Norton pcANYWHERE will ask you, in turn, to say whether each light is working. Respond to each question when prompted.

Scan Code Test

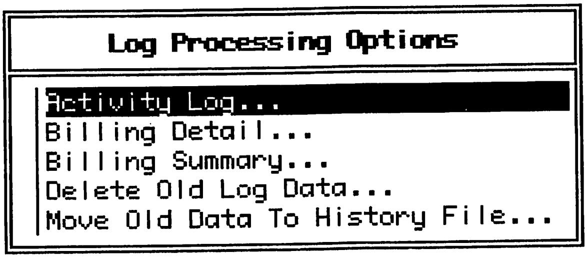
Choose this option to see what keyboard codes will be sent to an ANYWHERE host for various keys on your keyboard. This option will be useful when you need to discuss keyboard problems with our technical support personnel.

Determine Which Program Controls The Keyboard

This test tells you whether the BIOS or another program controls the keyboard. To provide useful information for technical support purposes, run this test only if your computer has been booted up in the fashion it usually would be when you do your daily work. That is to say, make sure any resident programs, network connections, etc. are already loaded before you run AWLAN.

In most cases where Norton pcANYWHERE determines that BIOS does not control the keyboard, callers using this system as a host will need to use the *Special Keyboard Handler*. See Chapter 7: *Special Options* in *Remote Session Options.*

View Log Files



Log files are files that contain the time, date, duration and other facts about calls received by a host or calls made by a remote. You enable logging by setting appropriate fields up in your Caller Information (host PC) or Host Information (remote PC). The log filename is made up of

AWHL(for **H**ost **L**og).LOG
or
AWRL(for **R**emote **L**og).LOG

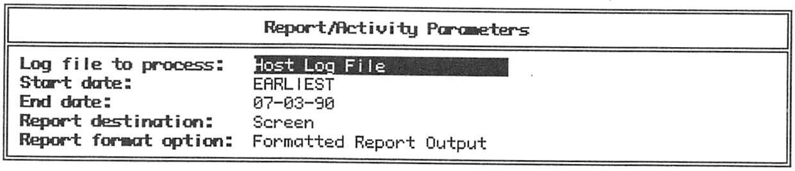
as in

AWHL.LOG or AWRL.LOG

The log file is stored in the current directory, or, if advanced installation was used, according to the specification made there.

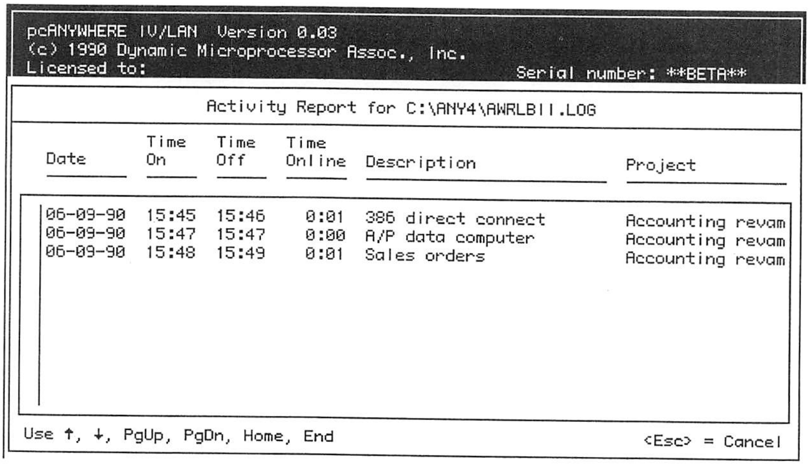
The *View Log File* option allows you to view and print out log file data in a variety of formats, and you can use this option to delete or archive old information.

ACTIVITY LOG



```
                         Report/Activity Parameters

 Log file to process:    Host Log File
 Start date:             EARLIEST
 End date:               07-03-90
 Report destination:     Screen
 Report format option:   Formatted Report Output
```

Use this option to get a simple columnar summary of host or remote activities on your system. The screen following shows an example of such an activity report.



```
 pcANYWHERE IV/LAN  Version 0.03
 (c) 1990 Dynamic Microprocessor Assoc., Inc.
 Licensed to:                                     Serial number: **BETA**

                  Activity Report for C:\ANY4\AWRLBII.LOG

              Time    Time    Time
   Date       On      Off     Online  Description            Project

  06-09-90   15:45   15:46    0:01   386 direct connect      Accounting revam
  06-09-90   15:47   15:47    0:00   A/P data computer       Accounting revam
  06-09-90   15:48   15:49    0:01   Sales orders            Accounting revam

 Use ↑, ↓, PgUp, PgDn, Home, End                             <Esc> = Cancel
```

Activity Report

When you select *Activity Log*, Norton pcANYWHERE presents the Report/Activity Parameters form. After you have finished filling out the fields, press the **<Esc>** key. Norton pcANYWHERE will ask you if the report or archiving action should be invoked. The fields for this form are described below:

Log file to process

Default: Host log file

Select a current log file, or a history file. Your options are:

Host Log File

The host log file has a record of calls made to your host.

Remote Log File

The remote log file contains the information about calls you have made and logged from your remote PC.

Host Log History File

Host log history files contain information about old calls made to your host that you have archived by using the *Move Old Data To History File* option. History files have an .HST extension.

Remote Log History File

Remote log history files contain information about old calls you have made that you have archived by using the *Move Old Data To History File* .

Start date

Default: EARLIEST

This field marks the beginning date for log information you will view. If you leave it blank (the form will show "EARLIEST" if you enter a blank date) the log starts with the earliest sessions in the selected log file. Or, enter the start date for the first sessions whose log entries you wish to see. Use the following format:

mm-dd-yy

If the month or date is under 10, you can enter a single digit—no leading 0 is necessary. You may separate the month, date, and year by a hyphen (-), slash (/), backslash (\) or period (.).

End date

Default: Today's date

Leave the field as is, with the current system date filled in, to see an up-to-the-minute list. Or enter another date, to end your log report with the sessions for that day. Follow the rules above for entering the date.

Report destination

Default: Screen

Use this option to determine the way you'll view or output this report. The choices are:

Screen

Report output will be displayed on your monitor screen. You can use the cursor keys to scroll the report forward and back.

Disk File

Use this option if you want to create an ASCII disk file instead of printing the report, or viewing it on screen. The file name is as follows:

AWL+REPORT TYPE. ASC

The report type is "A" for an activity report, "D" for a billing detail report, or "S" for a billing summary report. For example, the activity log report would be AWLA.ASC.

Be careful using this option. If there are any existing files of the same name on the current directory, they will be overwritten and lost when you generate this report.

Printer (80-column)

Use this option to format the report for a printer that prints 80 characters on a line. 80-column reports will not include the project and comment information.

Printer (132-column)

Use this option to format the report for a printer that prints 132 characters on a line. The report will include the project and comments information.

Report format option

Default: Formatted report output

This option determines how the report will look in your disk file or printout. (The report is always formatted when you view it on the screen.)

Formatted report output

If you use this option, the report you save to disk or print will resemble the screen report. The only differences are that page numbers are included, and that the columns are adjusted for the printer you have specified, if any. If you are creating a billing detail or summary report, it looks like one of the screens following.

Export log data in fixed format

Use this option if you want the data formatted in columns, using no title, column headings or lines. You can edit the data using almost any word processor.

Export log data with delimiters

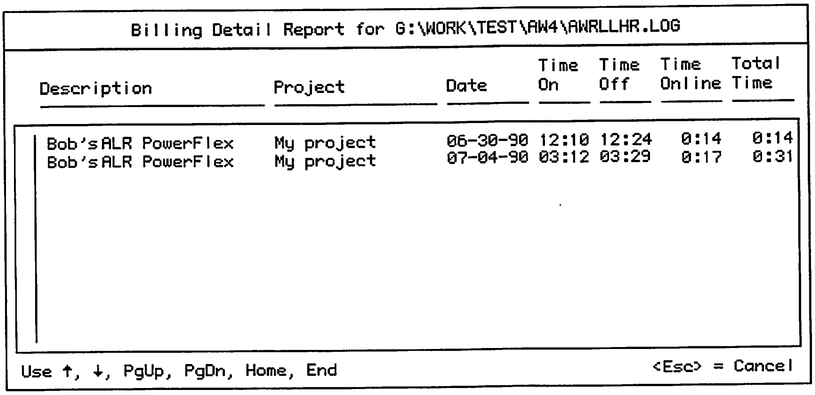
If you choose this format, your data will be formatted for use in a database application or other program that requires delimiters between fields. No headings, titles, or lines are included. Each item is enclosed in double quotes (") and separated from the next item by a comma. Month, date, and year are separated by slashes (/) Each entry is followed by a carriage return. No spaces are used, except within the text items. Here is a brief example showing an activity report entry without project names or comments:

```
"5/15/90","15:08","15:28","00:20","John Doe"
```

BILLING DETAIL

Use this option to get a detailed billing report of host or remote activities on your system. This report is sorted by the host called or by the caller who has dialed this host. Every call will appear on the report. When you select *Billing Detail*, Norton pcANYWHERE presents the same fields described above on the Report/Activity Parameters screen. Refer to the descriptions above if you need help filling out the fields or processing the report.

The screen sample following shows an example of a billing detail report. Note that the total time on-line is computed.

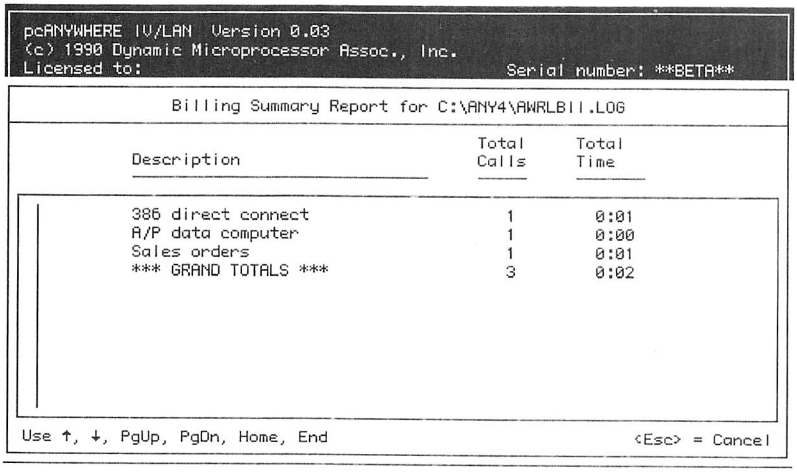


```
                 Billing Detail Report for G:\WORK\TEST\AW4\AWRLLHR.LOG

                                                      Time  Time  Time   Total
  Description            Project           Date      On    Off   Online Time

   Bob'sALR PowerFlex     My project        06-30-90 12:10 12:24   0:14   0:14
   Bob'sALR PowerFlex     My project        07-04-90 03:12 03:29   0:17   0:31

 Use ↑, ↓, PgUp, PgDn, Home, End                              <Esc> = Cancel
```

BILLING SUMMARY

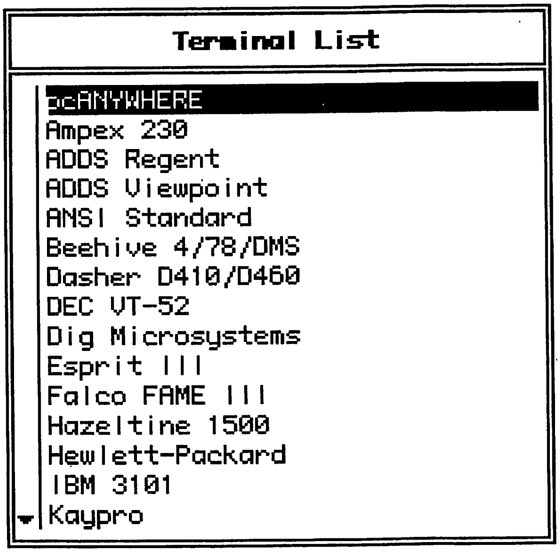
Use this option to get a summary billing report of host or remote activities on your system. The Billing Summary report differs from the Billing Detail in that there will only be one line per caller or host, summarizing total number of calls and total time on-line. When you select *Billing Summary*, Norton pcANYWHERE presents the same fields described above under **Activity Log**. Refer to the descriptions above if you need help filling out the fields or processing the report.

The screen below shows an example of a billing summary report. Note that the total time on-line is computed, but the times and dates are not included.



```
pcANYWHERE IV/LAN  Version 0.03
(c) 1990 Dynamic Microprocessor Assoc., Inc.
Licensed to:                                        Serial number: **BETA**

              Billing Summary Report for C:\ANY4\AWRLBII.LOG

                                               Total      Total
         Description                           Calls      Time

         386 direct connect                      1          0:01
         A/P data computer                       1          0:00
         Sales orders                            1          0:01
         *** GRAND TOTALS ***                    3          0:02

Use ↑, ↓, PgUp, PgDn, Home, End                             <Esc> = Cancel
```

Modify Terminal Configurations



Terminal List

pcANYWHERE
Ampex 230
ADDS Regent
ADDS Viewpoint
ANSI Standard
Beehive 4/78/DMS
Dasher D410/D460
DEC VT-52
Dig Microsystems
Esprit III
Falco FAME III
Hazeltine 1500
Hewlett-Packard
IBM 3101
Kaypro

pcANYWHERE/Host only
Advanced feature

Note
Do not use this feature unless you understand the terminal you are configuring for or have its manual in hand. This utility is for advanced users only.

This program allows you to modify Norton pcANYWHERE/Host's stored terminal parameters. The list of terminals appears in Norton pcANYWHERE/Host when *Terminal type* is selected from the Caller Information fields. If *Ask Caller* is selected by the host user as the terminal type, the same list is presented when the remote user comes on-line for a session; the remote user then chooses the correct terminal type from the list.

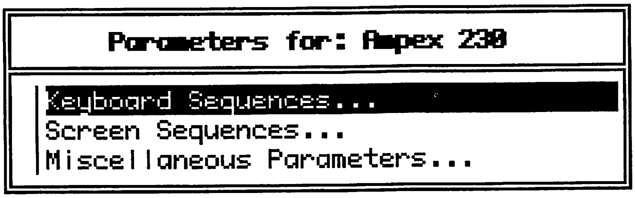
In most Norton pcANYWHERE/Host sessions, the remote user has Norton pcANYWHERE/Remote and is using a PC, and so *pcANYWHERE* is the usual terminal type.

However, remote users do not have to have a PC in order to access an ANYWHERE host– they just need a communications program or a terminal emulation program that imitates one of the terminals on the list.

If the remote terminal is not on Norton pcANYWHERE/Host's list, the remote user must check the terminal or computer system manual and find out whether the terminal can emulate one of the terminals on Norton pcANYWHERE/Host's menu.

If the remote terminal is not supported by Norton pcANYWHERE/Host, the host user can select this utility to modify a terminal type and make any necessary changes or additions to the terminal configurations.

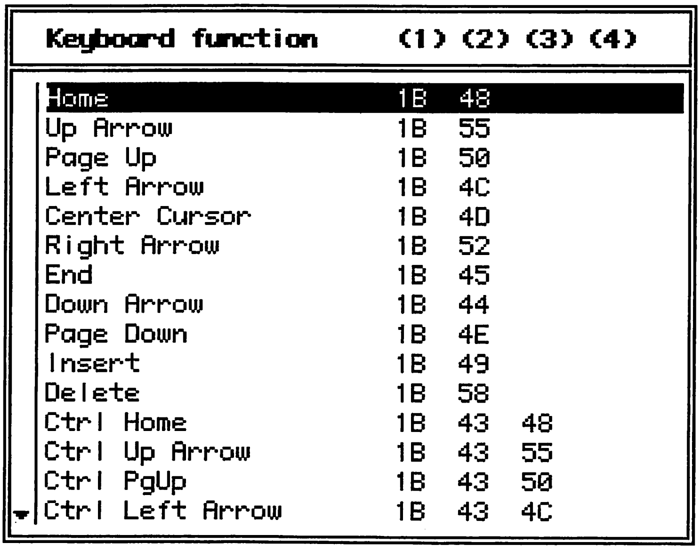
Terminal Parameters



After you select a terminal type, Norton pcANYWHERE/Host displays a menu of terminal parameters for you to choose from. You can work with the key sequences used to emulate the IBM keyboard or change the cursor positioning codes that Norton pcANYWHERE/Host uses to move the cursor and position screen information. Or you can modify a variety of miscellaneous parameters, including terminal height and width, number of pad characters, and more.

KEYBOARD SEQUENCES

Keyboard sequences are likely to need changes if you have to modify a terminal configuration. You might want to take advantage of special function keys on the remote terminal by making them equivalent to keys on the PC keyboard. Or it might be a benefit to establish keystroke sequences that are easier for you to remember and use.



Keyboard function	(1)	(2)	(3)	(4)
Home	1B	48		
Up Arrow	1B	55		
Page Up	1B	50		
Left Arrow	1B	4C		
Center Cursor	1B	4D		
Right Arrow	1B	52		
End	1B	45		
Down Arrow	1B	44		
Page Down	1B	4E		
Insert	1B	49		
Delete	1B	58		
Ctrl Home	1B	43	48	
Ctrl Up Arrow	1B	43	55	
Ctrl PgUp	1B	43	50	
Ctrl Left Arrow	1B	43	4C	

When you select *Keyboard sequences*, Norton pcANYWHERE/Host displays a list of keyboard functions. Next to each function is a series of up to four keystrokes that are pressed to perform the function. These keystrokes are expressed in hexadecimal code.

Here is an example showing what a couple of entries might look like:

Keyboard function	**(1)**	**(2)**	**(3)**	**(4)**
Up arrow	1B	5B	41	
Down arrow	1B	5B	42	

Select a function if you wish to modify it. Press the **<Esc>** key to return to the Terminal parameters menu.

When you choose a function, Norton pcANYWHERE/Host displays a form that lists the codes for the function, like this:

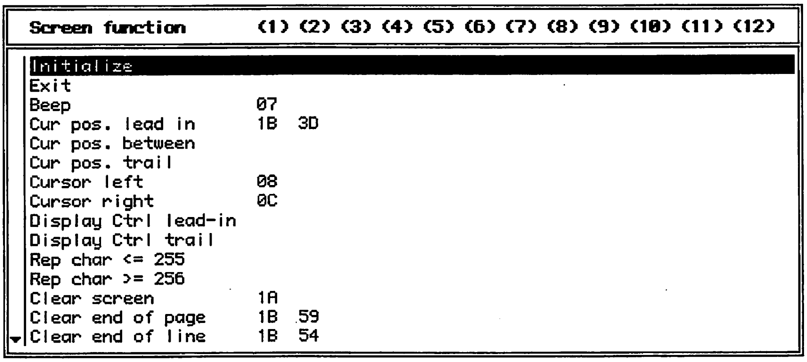
Keyboard sequence for: Up arrow	
1st code	[1B]
2nd code	[5B[
3rd code	[41]
4th code	[FF]

Select the code you want to change. Type in the new hexadecimal value. Press the **<Esc>** key to return to the list of functions and keystrokes.

As you change key sequences, keep these cautions in mind:

- Use a non-displaying character, like **<Esc>** or another control code, to precede the keys for a function.
- Avoid entering key sequences that might be misinterpreted. For example, if you enter **<Esc>** `X (1B 58)` for one function, and **<Esc>** `X Y (1B 58 59)` for another function, the second function will not work.

SCREEN SEQUENCES



```
Screen function       (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)

Initialize
Exit
Beep                  07
Cur pos. lead in      1B  3D
Cur pos. between
Cur pos. trail
Cursor left           08
Cursor right          0C
Display Ctrl lead-in
Display Ctrl trail
Rep char <= 255
Rep char >= 256
Clear screen          1A
Clear end of page     1B  59
Clear end of line     1B  54
```

This option allows you to modify the sequences Norton pcANYWHERE/Host uses with this terminal to move the cursor and position information on the screen. It also permits you to change the sequences used to display screen attributes.

When you choose to modify screen sequences, Norton pcANYWHERE/Host presents a table of the current sequences.

This table of sequences looks much like the one for key sequences, and works the same way. Next to each function is a series of up to eight values that are used to perform the function. They are expressed in hexadecimal code. Select the function you wish to modify. Norton pcANYWHERE/Host displays a table similar to the one for key sequences with room for up to eight codes. Select the code to change and type in the new hexadecimal value. Press the **<Esc>** key to return to the list of cursor movement and positioning functions.

As you work with these functions, refer to the table below for the meaning Norton pcANYWHERE/Host attaches to each function.

Cursor Movement and Positioning

Function	Description
Cursor up	Moves cursor up one line in column
Cursor down	Moves cursor down one line column
Cursor left	Moves cursor one position left, without erasing
Cursor right	Moves cursor one position right, without erasing
Cursor home	Moves cursor to upper left hand corner on the screen
Clear screen	Erases all displayed data, leaving cursor in upper left hand corner.
Clear to end of line	Erases all data from current cursor position to end of line. Cursor remains in same row/column.
Clear to end of page	Clears all data from the current cursor position to the end of the screen. Cursor remains in same row/column.
Insert line	Moves all rows down one line, beginning with row below cursor. Cursor row is cleared to spaces and cursor repositioned in leftmost column.
Delete line	Deletes current line, scrolls up subsequent rows one position. The last line is cleared and the cursor is placed in the first column of the new current row.
Insert character	Inserts a blank space in the current line at the cursor position. All characters to the right on the same line move one position right and the last character is lost. the cursor does not move.
Delete character	Deletes character at the cursor position, moving all characters on the same row to the left. The last character on the line is a space.The cursor does not move.
Position lead-in	This sequence initiates the terminal's cursor positioning mechanism for fast cursor movement during many Norton pcANYWHERE/Host operations.
Position middle	This sequence represents the codes to be sent between the row/column or column/row address information, for fast cursor movement.
Position trailing	This sequence is sent as the last string to terminate fast cursor movement.
Terminal initialization	Use this entry to include any special setup that the terminal needs before it can be used.

Transparent print ON	This sequence tells Norton pcANYWHERE/Host how to make the terminal send data to an attached printer port. This sequence must make the terminal direct all further received data to the terminal's printer port and not the screen.
Transparent print OFF	This reverses the above function, and makes the terminal send received data to the screen.

Attributes

Screen attributes add visual effects to screen displays. Each displayed character can have a different attribute. Attributes include highlighting, reverse video, blink video, and underlining. Attributes can be combined in a variety of ways. The attributes included in the screen sequence table are those that could be displayed on the host PC. When an attribute is displayed on the host, Norton pcANYWHERE/Host tries to display the same attribute on your remote terminal. If your terminal does not support a given attribute, you may wish to replace the Norton pcANYWHERE/Host value with an attribute value that will show up on your terminal.

Rules and Cautions

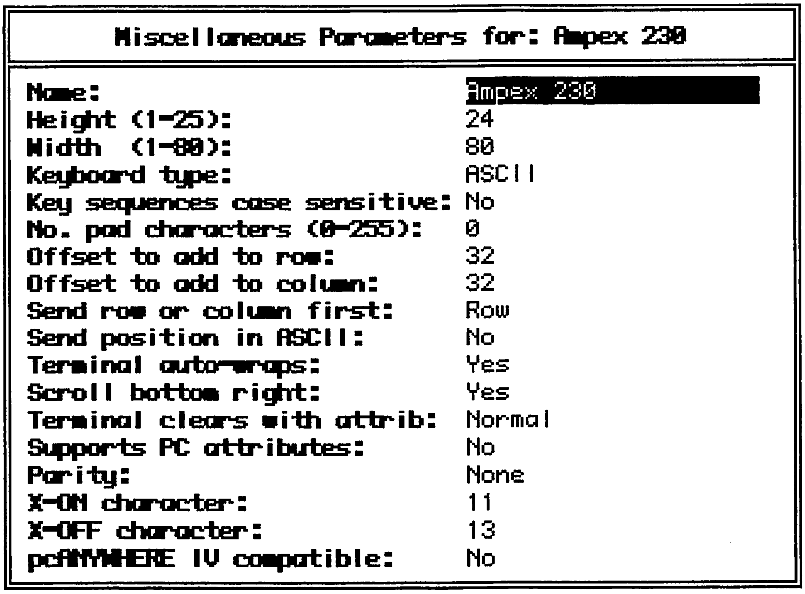
There are a number of facts to keep in mind when adjusting attributes and cursor sequences:

- To leave out an attribute or sequence, enter `FF` as the first code. `FF` as the first character means that a terminal does not support the function.
- Norton pcANYWHERE/Host requires that your terminal supports a cursor positioning sequence. You also must have cursor left, cursor right, and clear screen sequences available. Insert and delete line sequences improve scrolling. All other cursor and positioning sequences should be entered if they are available on the terminal.
- Attributes must not take up a position on the screen in Norton pcANYWHERE/Host. If a terminal's attribute takes up a position, leave it out by entering `FF` as the first code.
- Some terminals' clear screen sequence only erases screen data, and does not position the cursor at the upper left hand corner of the screen. For those termi-

nals, make sure that Norton pcANYWHERE/Host's clear screen sequence includes both clear screen and cursor home codes.

- The miscellaneous parameter, *Row or column first*, controls the order in which row and column addresses are sent for fast cursor movement.

MISCELLANEOUS PARAMETERS



```
          Miscellaneous Parameters for: Ampex 230

Name:                          Ampex 230
Height (1-25):                 24
Width  (1-80):                 80
Keyboard type:                 ASCII
Key sequences case sensitive:  No
No. pad characters (0-255):    0
Offset to add to row:          32
Offset to add to column:       32
Send row or column first:      Row
Send position in ASCII:        No
Terminal auto-wraps:           Yes
Scroll bottom right:           Yes
Terminal clears with attrib:   Normal
Supports PC attributes:        No
Parity:                        None
X-ON character:                11
X-OFF character:               13
pcANYWHERE IV compatible:      No
```

These parameters provide additional information necessary to support the terminal type.

Height and width

Enter the number of rows (lines) and columns your terminal can support. Most terminals support 24 columns and 80 rows.

Keyboard type

PC-like terminals are most often used in a "scan code" keyboard mode. The actual characters transmitted are special codes, rather than the ASCII characters printed on the key caps. Set this value to *Scan Code* only if your terminal is operating in a PC mode.

Key sequences are case sensitive

This field lets Norton pcANYWHERE/Host know whether it should differentiate between character codes according to whether letters are upper- or lowercase. For example, does *Esc a* mean the same thing as *Esc A*. If upper- and lowercase letters have different meanings in this context, set this parameter to *Yes*.

No. pad characters (0-255)

Some terminals require a time lapse following a clear screen, insert line, or delete line operation, before subsequent characters can be processed. Some terminals also require a time lapse for cursor positioning. Pad characters don't appear on the screen, but take up time, providing the pause that the terminal needs. If your terminal needs pad characters, enter a value larger than 0. If you set the *Send pad after position* parameter to *Yes*, pad characters are also sent after a cursor position sequence.

Offset to add to row/column

These two parameters require an offset value to be added to row or column addresses for positioning the cursor. For example, many terminals require the first row address to be 32, so the *Offset for position to row* value would be 32 for these terminals. Use decimal numbers for these parameters.

Send row or column first

Row and column addresses are needed for fast cursor positioning. Some terminals require that the row address be sent first, and some need the column address first.

Send position in ASCII

Some terminals, such as those supporting the ANSI standard, send ASCII digits to represent row and column addresses. Other terminals use binary numbers. If the remote terminal uses ASCII numbers, set this option to *Yes*.

Terminal auto-wraps

Some terminals automatically move the cursor to the beginning of the next line after displaying the character in the last column. Many terminals allow you to turn this function off or on. Make sure you set this parameter to reflect the terminal's wrap mode.

Scroll bottom right

Some terminals scroll the next line when the last character on the last line is displayed. If a terminal behaves this way, set this option to *Yes.*

Terminal clears with attribute

When some terminals clear the screen, they use the last attribute in place rather than reverting to normal display. For example, if the last attribute on the screen was reverse video, then a clear screen sequence causes the cleared screen to appear in reverse video. If your terminal behaves this way, set this option to *Yes.*

Supports PC attributes

Set this field to *Yes* if your terminal supports the same video attributes or colors that a PC screen supports.

Parity

Norton pcANYWHERE/Host normally uses *None* as the parity. This is the preferred setting and must be used if the *Scan code keyboard* parameter is *Yes.* For more information on parity, see Chapter 4, Hardware Configurations, under the heading **Parity**.

X-ON character

Enter the character, in hexadecimal, that your terminal uses for X-ON when software flow control is employed.

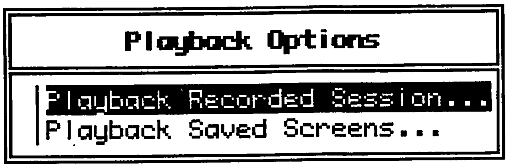
X-OFF character

Enter the character, in hexadecimal, that your terminal uses for X-OFF when software flow control is employed.

pcANYWHERE compatible

This field tells Norton pcANYWHERE/Host whether or not the terminal is actually terminal emulation software compatible with Norton pcANYWHERE/Host.

Play Back Session/Screen


Playback Options

Playback Recorded Session...
Playback Saved Screens...

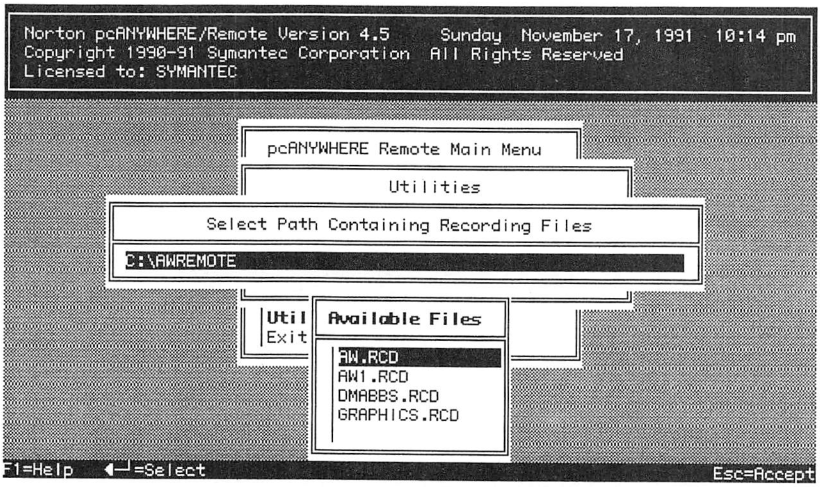
pcANYWHERE/Remote only

The playback utility allows you to browse through previously saved remote sessions or screen shots. You can play back information recorded from both ANYWHERE and non-ANYWHERE sessions. Any recorded screens or sessions appear just as they did during the remote session when they were recorded.

PLAY BACK RECORDED SESSION

When you select *Play Back Recorded Session*, Norton pcANYWHERE/Remote displays the current path. Press ↵ to select a recording file (.RCD extension) from this directory, or:

- Look at a list of directories by pressing ⇓. Then press ↵ to choose a directory one level up, or highlight the name of a listed subdirectory and press ↵ to work with it, or
- Type in a new path and press ↵ to list any recording files.



```
Norton pcANYWHERE/Remote Version 4.5     Sunday  November 17, 1991  10:14 pm
Copyright 1990-91 Symantec Corporation  All Rights Reserved
Licensed to: SYMANTEC
```

Select Path Containing Recording Files

C:\AWREMOTE

Highlight a filename and press ↵ to view the file.

Playback Options

Once a playback file is selected, you are presented with a menu from which to select one of the following options:

Begin Session Playback

This selection starts the playback. The following keystrokes are available during playback:

Increase playback speed	Up arrow key
Decrease playback speed	Down arrow key
Select playback speed (0 is fastest)	0 - 9
Pause (until another key pressed)	Spacebar
Pause playback, pop up option menu	Esc

When you press **<Esc>** during a session playback, you will see a Playback Options menu similar to the original one, with one additional option: Save Screen. *Save Screen*, as a menu item, is covered in Chapter 7, Sessions, under *Remote Session Options.*

Set Starting Session Number

Since recording files may contain several remote sessions, you need to set the starting session number if you want to skip to a particular session.

Start Recording To Another File

A special feature of playback is that you can rerecord any session or part of a session in another record file. This gives you the effect of cut and paste replayable sessions. When *Start Recording To Another File* is selected, you are asked for a filename.

Save Session To A Raw Binary File

Advanced Option

Record files are specially formatted for use by the playback utility. If necessary to receive technical support, this option will simply extract all data that was received by the remote PC and write it to a binary file. It will eliminate the additional information saved in record files by Norton pcANYWHERE/Remote.

PLAY BACK SAVED SCREENS

When you select *Play Back Saved Screens*, Norton pcANYWHERE/Remote displays the current path. Press ↵ to select a saved screen file (.SCN extension) from this directory, or:

- Look at a list of directories by pressing ⇓. Then press ↵ to choose a directory one level up, or highlight the name of a listed subdirectory and press ↵ to work with it, or
- Type in a new path and press ↵ to list any screen files.

Highlight a filename and press ↵ to view the file.

Playback Options

Once a playback file is selected, you are presented with a menu to select from the following options:

Begin Session Playback

This selection starts the playback. The following keystrokes are available during playback:

Display previous screen	Up arrow key
Display next screen	Down arrow key
Pop up playback options menu	Esc

When you press **<Esc>** during a session playback, you will see a Playback Options menu similar to the original one, with two additional options: Save Screen and Save Screen In ASCII Format. Save Screen simply allows you to capture this screen into another save screen file. Save Screen In ASCII Format is used when you do not care about the color attribute information and simply want the screen characters (text mode only) to be saved in a text file.

Set Starting Screen Number

Since saved screen files may contain many screen shots, you may wish to set the starting screen number. Each screen in a file is numbered, starting with 1 for the first screen in the file.

Preprocess A Script...

Choose this option to select a script to preprocess using the standard file selection methods. The preprocessor is then invoked to convert the .SCR source file to the executable .SCX file format. Any errors detected during the preprocessing step are saved in a file with the same name as the script, but with an extension of .ERR

10

Troubleshooting Part 1: Messages

This chapter is included to help you troubleshoot your remote computing activities. Part 1 discusses the messages Norton pcANYWHERE displays to alert you to a problem, or to indicate a condition. The messages are listed in alphabetical order, and each is followed by one or more solutions or explanations. Please check for any READ.ME files or addendum sheets that might have accompanied your package for any additions or corrections to message text. Brackets ([]) indicate words or values that vary according to the names and settings in your copy of Norton pcANYWHERE.

Access violation opening [filename]

Either DOS or your network operating system has reported that you do not have proper privileges to read a file you have attempted to transfer. This can happen if the file is in use by someone else, or if you do not have the necessary network privileges to open the file.

An incompatible version of pcANYWHERE is already active.

Cancel the operation of the incompatible version, then try again.

AWSEND could not disable Host

AWSEND has been started, but the session has been lost before directory information has been exchanged.

AWSEND could not enable Host

A file transfer session with AWSEND was finishing up, but the session was lost before AWSEND was done.

Busy

The phone number of the other system is busy. If your configuration specifies redial attempts, Norton pcANYWHERE will try again. For more information about redialing, see Chapter 4 in the section **Configuration Fields.**

Cannot create HOST file

There may not be enough space on the host disk for the file you want to transfer.

Cannot create REMOTE file

There may not be enough room on the remote disk for the file you want to transfer to it.

Cannot make new directory.

The directory may already exist, or there may be a file with the same name as the requested directory name. Use a different directory name.

Cannot open HOST file

DOS or the network software cannot open the file. You may not have the right to access it, or the file may be in use.

Cannot open REMOTE file

DOS or the network software cannot open the file. You may not have the right to access it, or the file may be in use.

Cannot remove directory.

There are probably files in the directory you are attempting to remove.

Cannot set data rate to MAX if modem set to NONE.

You must choose a specific data rate when you are not using a modem. In that case, Norton pcANYWHERE would have no other way of determining what speed the connection would be.

Cannot use RTS/CTS flow control when connection detection set to CTS.

When your *Connection started by* field in your hardware configuration is set to CTS, you cannot also set the *Flow control* to RTS/CTS.

Connection has been lost.

For an unknown reason there has been a physical break in the connection. This can be caused by a number of things: phone line failure, hanging up the phone, a call waiting signal on the line, or some other interruption.

CRC error on [drive n].

DOS has detected a serious disk error, called a CRC error, on a file on the specified drive. It usually indicates defective disk media.

Disk full.

You cannot write the file to the specified disk drive, because it is full. Exit to DOS and make room on the disk, and then try the operation again.

Disk I/O error.

The disk does not seem to be working properly. Make sure the correct drive name is specified.

DOS is busy, try again later.

An attempt to cancel Norton pcANYWHERE/Host operation using the pop-up menu, but it could not be done at this time because DOS was busy doing something else. Just try the operation later.

DOS is currently busy on the host PC. Only the master password can be accepted at this time.

This error may occur when a remote user tries to connect to a waiting host. Certain DOS operations (such as writing to a disk) keep the host program from reading the disk. If this happens, the host software cannot read the caller information files and therefore cannot check your caller entry granting you access. If you don't have the master password, try the host again later.

Error: Ambiguous file names are not allowed.

You may not enter a filename that includes asterisks (*) or question marks (?).

Error: Cannot load configuration.

Norton pcANYWHERE stores configuration information in files with the extension .CNF. It is possible that your configuration file for this operation has been erased or is physically damaged. You may have to re-start Norton pcANYWHERE and reenter the configuration information.

Error: Cannot save graphics screens to ASCII data files.

Only non-graphics recorded sessions and screens can be saved as ASCII files.

Error in message file.

This error indicates a serious problem with the message data base file. First try recopying the .MSG files from your master diskettes. If this does not solve the problem, try reinstalling Norton pcANYWHERE/Host and/or Norton pcANYWHERE/Remote.

Error in modem script.

Generally indicates a failure in the message file. First try recopying the .MSG files from your master diskettes. If this does not solve the problem, try reinstalling Norton pcANYWHERE/Host and/or Norton pcANYWHERE/Remote.

Error - not enough memory to execute the function.

A function you have requested, such as file transfer, cannot be executed because there is not enough free memory. Make sure you are not running software that is taking up RAM memory required by Norton pcANYWHERE. You may sometimes be able to recover some memory by exiting to DOS and restarting AWHOST or AWREMOTE.

Error reading configuration or program file.

The host system cannot read a .CNF or program file. This problem may be due to a physical problem on the disk. See **Error reading the configuration file** below.

Error reading HOST file.

The host file may be on a defective portion of the disk.

Error reading the configuration file

Norton pcANYWHERE stores configuration information in files with the extension .CNF. It is possible that your configuration file for this operation has been erased, or moved to a directory other than the Norton pcANYWHERE program directory. If not, you will have to move your .CNF files to the location where Norton pcANYWHERE expects to find them, or reenter the configuration information.

Error: Source file not found.

Exit to DOS, if necessary, and check the source file name and location.

Error: Unable to create directory: [pathname] Installation cancelled. Press any key...

Norton pcANYWHERE issues this message during installation when it has not been able to create the directory you requested for Norton pcANYWHERE files. Press any key to leave the installation program.

Error: Unable to create file:[filename] Installation cancelled. Press any key...

Norton pcANYWHERE issues this message during installation when it cannot create a file that is needed for Norton pcANYWHERE operation. This is actually a DOS file creation error, and may be caused by a defect on your hard disk, or insufficient room on your hard disk. Press any key to leave the installation program.

Error: Unable to read file : [filename] Installation cancelled. Press any key...

Norton pcANYWHERE issues this message during installation when there is a problem with a file on the disk you are installing. If this is a backup disk, recopy the master disk onto another, defect-free disk. If the file does not exist on the master disk, or if the master disk is defective, contact the dealer from whom you bought Norton pcANYWHERE.

File already exists.

You have specified the name of an existing file. Use a different filename or path.

File not found.

This file does not exist on the specified path.

General failure on [drivename].

The drive is not turned on or is not functional. It is also possible that the disk is not formatted. This is a DOS reported error.

Host user is busy.

The host user is using the Norton pcANYWHERE/Host hot key menu to perform some activity such as file transfer or directing print output. You will not be able to use your remote system until this activity is complete.

Inactivity timeout expired.

The host user has specified an inactivity timeout period in *Preferences*, and the caller information entry for the current remote user specified that the inactivity timeout should be used. This means that the session is ended because the specified amount of time has passed with no activity over the phone line or direct cable.

Incompatible version already running.

Another version of pcANYWHERE is already running. Cancel it and try again.

Incorrect date format.

Valid date entry formats use one or two digits for month, day, and year, separated by slashes (/), hyphens (-) or dots (.).

Incorrect MSG file...

You do not have the correct Norton pcANYWHERE .MSG file. Try reinstalling Norton pcANYWHERE. If that doesn't work, contact the dealer who sold you Norton pcANYWHERE.

Incorrect password

You have not entered the correct master password. You need the master password in order to perform the operation you have selected. If you have simply made a typo, press the **<Esc>** and try the operation again.

Internal communication error.

A serious software error was detected. Please write down the circumstances that led up to the problem and call technical support.

Internal error.

A serious software error was detected. Please write down the circumstances that led up to the problem and call technical support.

Internal window error.

A serious software error was detected. Please write down the circumstances that led up to the problem and call technical support.

Invalid filename.

Enter a correct DOS filename, using letters and numbers. DOS does not accept !, @, #, $, %, ^, &, *, (,) as part of filenames.

Invalid file name. Do not include an extension.

For your current operation, Norton pcANYWHERE adds the extension for you. Use a DOS filename of up to eight characters.

Invalid password. Please try again.

You have entered the wrong password for this host, but you are permitted at least one more try. You must enter the password that the host user has designated for access to the host system, or the host master password.

If you typed in the password, you may have made a typing error. Try again..

If you have used a password that was stored in a host entry for this host, try typing the correct password in by hand. If that doesn't work, the host does not have a caller information entry with the password you are entering. If you don't know the right password, press the hot key (usually **<Ctrl>-<Right>-<Shift>**; see Chapter 6, Norton pcANYWHERE/Remote, the section entitled **Preferences**) to end the session and check with the host user or system administrator, if necessary.

Invalid serial number.

Contact the dealer where you bought Norton pcANYWHERE.

Log in unsuccessful.

If you are the host
A remote system was trying to connect with your host system, but was unsuccessful, most likely because of an incorrect password entry.

If you are the remote user
You must enter the password that the host has designated for remote access or the host system's master password. You have entered an incorrect password, or Norton pcANYWHERE has entered it for you via the host entry. The host is not allowing you another password attempt.

If you think you have made a typing mistake, press the hot key (usually **<Ctrl>-<Right>-<Shift>**; see Chapter 6, Norton pcANYWHERE/Remote, the section entitled *Preferences*) to end the session and try contacting the host again.

The password in the host entry for this host may be incorrect. Check it, and check with the host user to correct the password.

Month, day and/or year out of range.

The numbers entered for month, day, and year do not represent a valid date.

Name already in use.

This hardware configuration is already defined. Type in a different name.

No connection.

Norton pcANYWHERE was unable to make the connection, perhaps because the modem was unable to make connection or the systems are not cabled properly. See Appendix A for information on modems and cabling.

No dial tone.

Norton pcANYWHERE has attempted to use the phone line to make a call, but there is no dial tone. The phone line may be disconnected from the jack or otherwise cut off.

No log data found within the given date range.

Make sure that the type of log and dates you entered are correct, or check and see if the log data you seek has been moved to a history file.

No modem response.

Your modem is not responding to Norton pcANYWHERE. There may be one of several reasons:

- The serial port you have designated in your configuration is not working.
- The modem is not turned on.
- The modem is not cabled properly.
- The serial port you specified in your configuration is not the one your modem is connected to.
- The serial board or internal modem is not correctly configured for Norton pcANYWHERE use.

Appendix A gives information on modems or cabling. For other problems, see your modem or system manual.

No paper.

The printer reports that there is no paper in it.

No record files found in the current directory.

Try accessing another directory. Press ⇓ to look at another directory. Highlight ".." to see a list of the directories one level up.

No screen files found in the current directory.

Try accessing another directory. Press ⇓ to look at another directory. Highlight ".." to see a list of the directories one level up.

Not available: [computer name].

This system is already in use or not ready to start a session.

Not ready [drive or device name].

The drive you specified has no disk in it, or the drive door is not closed, or the drive is not turned on.

Operator abort.

This message may be followed by *Please wait* and *Press any key to continue.* The remote computing session was ended before both parties were on-line for the session, probably because you pressed the **<Esc>** key. To try the session again, you must re-start Norton pcANYWHERE.

Procedure name already in use.

Two procedures cannot have the same name. Enter a new name, or rename the other procedure.

Program not installed correctly. Please reinstall or contact your dealer.

Try reinstalling first. If any files are missing from your Norton pcANYWHERE system, the installation program will tell you.

Read fault on [drivename].

There appears to be a physical defect on the disk drive so that it cannot be read. This error was reported to Norton pcANYWHERE by DOS.

Remote print data will be discarded.

You or the host user has specified that printed data should be discarded. Use the hot-key Remote Session menu and set it to *Print to Remote only* or *Print to Host and Remote.*

Remote user is busy.

The remote user is using the Norton pcANYWHERE hot key menu to perform some activity such as file transfer or directing print output. You will not be able to use your host computer until this activity is complete.

Remote user logged off.

The remote user has ended the session.

Sector not found on [drive name].

There appears to be a physical defect on the drive you have specified. This is a DOS reported error.

Seek error on [drivename].

Norton pcANYWHERE cannot search the specified drive, because of a hardware problem with that drive. This is a DOS reported error.

The caller information file could not be found. Logging off...

The host's .CNF files could not be found, so the host system could not calls. These files must be located in the Norton pcANYWHERE program directory. Check with the host user.

The host operator is busy. You may end the session now or wait for the host operator to resume normal operation.

The host operator may be performing a Norton pcANYWHERE on-line activity.

*** The host PC is in a graphics mode that your terminal does not support ***.

The host system is running a software application that uses bit-mapped graphics, and your system does not support bit-mapped graphics. It may be possible to run the application in text mode. Have the host user check the manual for the software.

The incoming and outgoing configurations may not be the same.

You cannot use the same device and port for the incoming and the outgoing configurations, because only one operation can take place at a time on the same hardware device.

The password already exists in another entry. Please use another password.

The password you have entered for this remote user already exists for another user. Enter a different password for each caller information entry.

The previous session was interrupted. Only the previous user's password will be accepted.

You cannot access this host until you enter the previous user's password, or the host master password. The host user can safeguard against this problem by setting the host preference *Allow any password on reconnect* to *Yes*.

The selected comm port is not available or not responding. The selected comm port is: [comm port].

Please verify....

See Chapter 4, Hardware Configurations, for more information. The comm port specified in the hardware configuration is not correct.

The selected host is not available.

The host already be in use by another remote caller.

The terminal configuration file cannot be accessed at this time. If your terminal type is [terminal type], press <Enter> to continue.

The host's .AW.TRM file could not be read now. DOS was busy at the time the connection was made. You can still connect to this host only if your terminal type matches that of the previous caller to this host.

The terminal configuration file could not be found. Logging off...

The host's AW.TRM file could not be found, so the host system could not accept calls. This file must be located in the Norton pcANYWHERE program directory. Check with the host user.

The terminal configuration file is invalid. Logging off...

The host's AW.TRM file is most likely physically damaged. Try having your system administrator recopy this file from your master diskettes.

This function may not be executed when your keyboard is disabled.

The operation you have selected from the Session Options menu is disabled (such as host rebooting) when your remote keyboard is not active in the current session.

Time allowed on-line has expired.

The session is ended, because the host user has specified a limit on the amount of time you can spend in a session, and that time period has expired. In a few moments, you'll be prompted to leave the session.

Too many files open.

DOS will not permit any more files to be opened, and the operation you have attempted tried to open a file. Try bumping up the "FILES=" line in your CONFIG.SYS file.

Transfer failed - connection lost.

The file transfer has been halted by a break in the connection between the host and remote. The break may have been caused by: hanging up the phone, turning off the computer or rebooting, turning off the modem, unhooking the cable.

Transfer failed - disk read error.

The file transfer cannot be performed because Norton pcANYWHERE cannot read one of the disks. The cause may be: a defect in the disk, a non-existent disk, or a disk of the wrong format.

Transfer failed - disk write error.

Norton pcANYWHERE cannot perform the file transfer because it cannot copy the file(s) to the receiving disk. The causes may be: a defect in the disk, a write-protected removable disk, or a non-existent disk.

Transfer failed - file create error.

The file transfer has failed because Norton pcANYWHERE could not copy the file to the receiving system. This is a message generated from DOS, and may be caused by insufficient disk space.

Transfer failed - operator cancelled.

The person who initiated the file transfer has cancelled it.

Transfer failed - other side cancelled.

Your remote computing partner has cancelled the file transfer operation.

Transfer failed - timed out.

One side of the remote session was not responding, so the transfer could not be performed. There is a problem on the other system.

Transfer failed - too many retries.

The program kept trying to send blocks but they were not received.

Unable to access remote print device. Remote print data will be discarded.

You specified a Remote print device in Norton pcANYWHERE/Remote *Preferences.* Check and make sure you specified the correct device name for your printer, and that the printer is turned on. As it currently stands, any attempt by the host to send print data to the remote will be ignored.

Unable to access the file.

Check and see whether the file is already in use or does not exist. You also might not have proper network access rights to the file.

Unable to activate background file transfer on the host, because DOS is busy....

Try again. File transfer requires various DOS operations and DOS is currently busy on the host. An application may be writing information to the disk, or another DOS operation may be taking place.

Unable to begin operation. Operation must be cancelled before re-starting with a new device type. Please cancel the operation and try again.

If you have changed your port or device (specified in the hardware configuration), you will have to cancel host operation and re-start with the new configuration.

Unable to connect to: [computer name].

The named system is not available. It is already in use or not ready to start a session.

Unable to create the file.

Check and see whether: the disk is full, the filename already exists, or the disk is write-protected.

Unable to delete the configuration. It is used by host directory entry: [entry name].

Before you can delete a hardware configuration, it must first be removed from any host entries that use it. Make sure you don't delete a configuration that someone else needs.

Unable to establish connection.

This message can occur for a variety of reasons, but is usually caused by a physical problem. The phone line or cable may be disconnected.

Unable to find COMMAND.COM.

The operation you have requested requires that the COMMAND.COM program, normally on your boot disk, be located. Check your environment (you can use Norton pcANYWHERE's Hardware Diagnostics "Overview" option) to see if there is a line defining the variable COMSPEC. The pathname following "COMSPEC=" should be the place where a copy of COMMAND.COM is located at the time it is needed.

Unable to initialize communications device.

This message generally indicates a network or hardware problem. Try running hardware diagnostics.

Unable to initialize modem.

Your modem is not responding to Norton pcANYWHERE. There may be one of several reasons:

- The serial port you have designated in your configuration is not working.
- The modem is not turned on.
- The modem is not cabled properly.
- The serial port you specified in your configuration is not the one your modem is connected to.
- The serial board or internal modem is not correctly configured for Norton pcANYWHERE use.

Appendix A gives information on modems or cabling. For other problems, see your modem or system manual.

Unable to open AW.TRM.

The Modify Terminal Configurations Utilities option failed because the terminal configuration file, AW.TRM is missing, corrupted, in use by someone else, or you do not have rights to access the file.

Unable to update AW.TRM.

The Modify Terminal Configurations Utilities option failed because the terminal configuration file, AW.TRM is missing, corrupted, in use by someone else, or you do not have rights to access the file.

Unable to release allocated memory.

You have asked Norton pcANYWHERE/Host to be removed from memory, but it could not be done at this time. It is likely that other software used in this host has utilized memory in such a fashion that prevents Norton pcANYWHERE/Host from being removed from memory.

Unable to release system resources.

You have asked Norton pcANYWHERE/Host to be removed from memory, but it could not be done at this time. It is possible that releasing some other TSR programs (if they have this option) may let Norton pcANYWHERE/Host release itself.

Unable to remove from memory.

If you have attempted to cancel host operation while the host has other memory-resident software loaded, you may have to cancel that software before Norton pcANYWHERE/Host can be removed from memory.

Unable to respond to the hot key now because the host is busy. You may end the session now, or continue the session and press the hot key again later.

The host system is in a state where it may not be able to handle the interruption caused by pressing the hot key sequence. Usually you can try this again and it will work.

Unable to save new settings to disk.

There may not be room on your disk for the new settings, or there is some other problem with your disk. Exit to DOS and check.

Unable to save the screen.

You may not have enough space on your disk to save this screen. Exit to DOS and make some room, if you wish.

Unable to transmit. Host not responding.

The host system is not operating correctly for Norton pcANYWHERE.

Unable to write to the recording file.

You may not have enough space to add to the recording file. Exit to DOS and make some space on your disk, if you wish.

Unknown media on [drivename].

Make sure you have specified a floppy or hard disk drive of IBM-compatible type. The disk may not be formatted.

Unknown modem response.

Check and make sure that the modem name in your hardware configuration is correct. If that is not the problem, consult your modem manual, and Chapter 4, Hardware Configurations. You may have to enter an additional modem initialization string. Alternatively, with modem manual in hand, you can attempt a connection by typing commands directly to your modem. See Chapter 6, Norton pcANYWHERE/Remote and read the section entitled **Terminal/Direct Connect.**

Warning: Parity is being changed to NONE, which is required for the Norton pcANYWHERE terminal type.

When the remote terminal is a PC running Norton pcANYWHERE, the parity must be set to NONE. Norton pcANYWHERE will set this automatically.

Warning: The selected directory is not empty. All files and subdirectories will be deleted.

During file transfer, you have instructed Norton pcANYWHERE to delete a directory, but the directory may have other files and subdirectories contained within. This warning message tells you that, giving you an opportunity to change your mind. Otherwise, all files and subdirectories in the chosen directory will be erased.

Warning. There are no callers defined and the preferences specify that the caller table is to be used. You may choose to use the default caller parameters or cancel the operation.

Your Norton pcANYWHERE/Host *Preferences* indicate that the caller information table is to be used for screening incoming calls. However, there are no callers listed in that file. You can change your preference to use default caller information, or add some names to your caller table.

Warning. There are suspended host sessions...

Before ending the session, you should select any hosts you have suspended and terminate the sessions with them. Otherwise, these hosts will not be accessible unless your's or their master password is used to reach them.

Write fault on [drivename].

There appears to be a physical defect on the disk drive that makes it impossible to save data to it. This error was reported to Norton pcANYWHERE by DOS.

Write protect on:[drive name].

You cannot write to this drive. It is write-protected.

Your remote software or terminal is not compatible with the host PC...

If you are using a remote terminal, the session cannot begin until the host user or the system administrator sets up a terminal configuration for your remote terminal or terminal emulation program. They will have to use the *Modify Terminal Configurations* option from Utilities on Norton pcANYWHERE/Host's Main Menu.

Part 2: Problem Solving

Part 2 of this chapter lists some common remote computing problems, and some possible solutions. If Norton pcANYWHERE has issued an error message, check for it in Part 1, Messages in this chapter.

Incorrect cabling and modem switch settings are common problems, so, if you are using a serial configuration, be sure to review Appendix A, Modems and Cables, when you have a problem.

Serial Communications

I can't seem to transfer files with my IBM-compatible computer.

Some IBM compatibles, especially Leading Edge™ Models D and M, may not be able to transfer files unless you use a cable that supports auxiliary RS-232 signals, carried on pins 4, 5, 6, 8, and 20.

I get a "Unable to initialize communications" message.

There may be a piece of hardware, like a LAN card, tape back up card, or other equipment, that is conflicting with the IRQ (interrupt request) number used by Norton pcANYWHERE for your serial port. You can solve this problem by checking your modem manual to find out which IRQ number and port address it uses. You may be able to set up a *Custom* communications port in Norton pcANYWHERE's Main Menu *Hardware Configurations* option. This is covered in Chapter 4, Hardware Configurations. If this doesn't work, check the manuals for your other hardware, and make sure the modem isn't conflicting with some other hardware. You may have to make some changes to the ports used by your system components. Check with your dealer.

I am accessing a host via modem and my modem is dialing the host, but I can't make a connection.

If you are using a modem to reach a host (or if the host is calling you) and nothing seems to happen after the dial, you should check the answering system's hardware configuration field, *Seconds to wait after dial.* The default setting of *60 seconds* may have to be adjusted, because some telephone systems may require from 45 to 120 seconds after dialing to complete the connection.

I am using the Max data rate setting on my host computer. The speed of communications seems very slow for some callers.

The *Max* setting adjusts the data (baud) rate of your modem to match the data rate that incoming callers are using. Therefore, if the remote caller has a modem that is slower than yours, the session will be conducted at that slow rate.

I can't seem to run IBM BASIC and BASICA programs on the host computer.

Make sure that the programs you are running remotely do not attempt to use the same communications port that your hardware configuration specifies. In particular, BASIC can be instructed not to use comm ports. See the BASIC manual for further information.

I am using a serial connection with the host system. When I try to print to my remote printer, some of the characters don't print.

If your printer runs at a slower speed than the data rate used for Norton pcANYWHERE, you may have to communicate at a slower rate, or use a print buffer, to solve this problem.

My modem isn't on pcANYWHERE's list, and it won't initialize.

If your modem is supposed to be "Hayes compatible," try the Hayes selection that most closely matches the data rate of your modem. If that doesn't work, try *Hayes compatible* or the *Manual modem* option next. Check your modem manual and use the field *Additional modem initialization string* to add any commands needed.

If Norton pcANYWHERE issues the message *Unknown modem response* or another message indicating that it can't start up your modem, you may need an *Additional modem initialization string* in your hardware configuration. Check your modem manual and use commands for carrier detect (DCD) to follow a normal carrier, DTR on, and a ring number to answer on.

My modem isn't on pcANYWHERE's list and I get strange characters when I try to start a session.

See the item above.

Norton pcANYWHERE thinks there is a connection when there is none.

The factory setting on your modem may be carrier detect on (or true). The factory setting should be changed to off (false), so that the carrier detect signal only goes on when there is a call. (The modem command to toggle the carrier detect signal is AT&C1.) Alternatively, your cable may be incorrectly wired, forcing pin 8 on the computer's side to be connected to a signal that is always active. Try running Norton pcANYWHERE's Hardware Diagnostics.

Sometimes there is a break in the connection when I try to access the host computer as it is running an application, or when I try to run certain software on the host computer.

Check the software on the host system. Does it have mouse support or a telecommunications module? If the software supports a mouse, it may be installed in such a way that it is expecting to find the mouse on the same comm port that the host is using in the Norton pcANYWHERE hardware configuration. You may have to reinstall the software, or change its settings. The same problem can occur if the software is expecting to find a printer at the communications port used in the hardware configuration.

Some integrated software, like Framework™ and Symphony™ may interfere with Norton pcANYWHERE operation. This is because their communications module or printing function uses the same serial port needed by Norton pcANYWHERE for modem communications. Use these products' installation or setup programs to ensure that there is no conflict.

The host computer sometimes drops the connection during a session.

Make sure the phone line used by the host modem does not have call waiting. When another call comes in on that line, you may lose your connection.

When the host calls the remote system, there's no response.

If there is a problem when the host calls the remote system, it may be caused by a setting on the remote modem. Make sure that the Carrier detect signal (DCD) is set to follow a normal carrier.

Terminal Emulation

I have a remote terminal. How can I use it to access an ANYWHERE host?

You must use a communications program or a terminal that emulates one of the terminals that Norton pcANYWHERE supports. Work with the host user to find out if your communications/terminal emulation program is supported by Norton pcANYWHERE; the list of terminal types can be viewed by pressing ↵ in the caller information field *Terminal type*. This field must display your terminal type or *Ask caller* for you to communicate with the host. If your terminal type is not supported, an expert host user can create a customized terminal configuration for you, using *Modify Terminal Configurations* from Norton pcANYWHERE/Host's Main Menu Utilities. See Chapter 9, Utilities, and read the **Modify Terminal Configurations** section.

I am using a Link PC-Term compatible terminal at my remote site, and I can't seem to print remotely.

Enable XON/XOFF in your terminal setup, so that the terminal can tell Norton pcANYWHERE when to stop and restart printing data.

I am using a Kimtrom KT-7 compatible terminal at my remote site, and I can't seem to print remotely.

See the note above.

When I finish logging into my ANYWHERE host, the characters on the screen look strange.

The host user should check *Terminal type* in your caller information entry. If the terminal type is not correct for your system, the characters may look strange. The host user can correct the caller entry by using the right terminal type for you, or can specify *Ask caller*. If *Ask caller* is used, you select the terminal type before the session begins.

Keyboard

My remote screen looks fine, but the keyboard doesn't seem to work correctly.

You may need to try Norton pcANYWHERE's special keyboard handler. Use *Special Options* from the Remote Sessions Options menu, and try *Level 1* of the special keyboard handler first. Then try the other levels if this doesn't work. (The host's caller entry must allow use of the special keyboard handler.)

Some of the special (function, cursor) keys don't work during the session.

You may need to enable the special keyboard handler. Press the host hot key and select *Special Options*. This is a host-controlled function, so your caller information entry on the host system must enable the use of the special keyboard handler.

Many software applications require control of the keyboard in order to function properly, so you must use the special keyboard handler. The special keyboard handler is necessary when you are using a terminal emulation program to run the host computer.

The hot key isn't working.

This problem may be caused by memory-resident programs that are running on your system, programs like mouse drivers, print spoolers, or pop-up software. Remove all memory-resident programs. Then you can try loading them again, one at a time, to pinpoint which one is causing the problem.

Graphics

My remote screen is repainting a lot on my monochrome monitor when I run host programs that are in color.

Try running the programs in black and white mode, if possible. Norton pcANYWHERE is sending a lot of attribute (color) information that your screen doesn't need. You can also change the *Attribute translation* setting to *No*, using *Special Options* from the Remote Session Options hot key menu.

My remote system and the host system both have graphics adapters that are compatible with Norton pcANYWHERE, but graphics images do not appear on the remote screen.

The host user may need to make a change to host preferences. Try setting *Advanced graphics mode detection* to *Yes*.

Other Problems

What's the best way to set up pcANYWHERE for customer support?

Set up the host system so that Norton pcANYWHERE is activated by an incoming call. Use the *Begin host operation* option *Exit, allow incoming calls.* If you are communicating via modem and want the customer to bear most of the phone costs, set the caller information entry on the host system to include your phone number as the *Callback phone number.* (It can also be included as the *Default phone number* in Host preferences.) See Chapter 7, Sessions, and read the section **AWHOST Command Lines** to set the host system up via the host's AUTOEXEC.BAT file.

I want to run DESQview on the host computer.

To run DESQview remotely, invoke Norton pcANYWHERE/Host on the host computer first. Then, press <Ctrl><Alt>'D' to view the DESQview menu after the remote is in session.

I have some problems running Norton pcANYWHERE on my 20-MHZ 80386 computer.

You may have to slow down your processor speed to 12 or 16 Mhz. If your serial port or modem is not fully compatible with your high-speed computer, hardware problems may occur. These problems are not caused by Norton pcANYWHERE.

Tips for Remote Control of Windows

The memory and graphics requirements of the WINDOWS environment can pose unique problems to memory-resident software (TSRs). To avoid any conflicts between WINDOWS and Norton pcANYWHERE, you should observe the following guidelines concerning the installation and usage of Norton pcANYWHERE;

General Information

Make certain that you load the Norton pcANYWHERE/Host **BEFORE** running WINDOWS.

Both the Host and Remote require an EGA or VGA graphics capability.

WINDOWS Information

Avoid using complex backgrounds when in the WINDOWS operating environment. These complicated graphics patterns drastically decrease the performance of Norton pcANYWHERE. Repetitive patterns, including cubes and pyramids are acceptable.

In addition, the WINDOWS logo will be displayed relatively slowly on the screen. To combat this problem, initiate WINDOWS by using the following command instead of the standard WIN ↵:

```
WIN : ↵
```

For precautionary reasons only, Norton pcANYWHERE creates a backup of the WINDOWS System.INI file each time it is run. The backups are labeled as System.AW0 through System .AW9. The file called System.AW0 is your System.INI file prior to installation. If at any time you wish to return your system to its configuration prior to running Norton pcANYWHERE, simply replace the System.INI file with the System.AWO.

Things to check if you cannot run Microsoft Windows remotely with Norton pcANYWHERE. (The examples assume standard VGA adaptor, keyboard, and Microsoft Mouse. Use your appropriate video adaptor, keyboard, and mouse driver in the examples)

1. SYSTEM.INI file:

"[boot]"section:

`mouse.drv=awmouse.drv` (awmouse.drv replaces existing driver)
`display.drv=awvga.drv` (awvga.drv replaces existing driver)
`keyboard.drv=awkbd.drv` (awkbd.drv replaces existing driver)

"[386Enh]"section:

`display=awvddvga.386` (awvddvga.386 replaces existing driver)

`device=awvcd.386` (this line is added)

`network=*vnetbios,etc.` (remove vipx.386 from this line, if using Novell network. Old versions of this driver can cause problems)

2. Make sure PCAW.INI file exists and is correct. The contents of this file should be:

```
[pcANYWHERE]
mouse=aworgmse.drv
keyboard=keyboard.drv
display=vga.drv
```

Note:
Filenames after “keyboard=”, “display=” should be the original drivers in SYSTEM.INI file before Norton pcANYWHERE was installed. Check the backup of SYSTEM.INI (SYSTEM.AW0) to see what the original drivers were.

- If the original mouse driver in the SYSTEM.INI file was "mouse.drv", then the line should be "mouse=aworgmse.drv". If it was not mouse.drv, then the filename after "mouse=" should be the original driver from the SYSTEM.INI file.

3. The following files must be located where the Windows System drivers are:

```
awvga.drv
awega.drv
awmouse.drv
awkbd.drv
awkbdhp.drv
awkbdoli.drv
awvcd.386
awvddvga.386
awvddega.386
ega.gr3
egacolor.gr2
vga.gr3
vgacolor.gr2
```

`aworgmse.drv` *** This file will only be added if the original mouse driver line in your SYSTEM.INI file was "mouse=mouse.drv".

Note:
If using Network Installation of Windows, the Windows System drivers are in a shared directory on the Network, and the SYSTEM.INI files are personal. The above file must be in the shared directory on the network.

---

4. Make sure Windows can run alone on host machine before trying it remotely.

5. Make sure mouse driver is loaded on remote.

Technical Notes

There are a variety of technical notes which are important to the proper installation and operation of Norton pcANYWHERE.

Host Operation

1. If the Host is in the *Accept Any Call* mode and a connection is broken and the print output has been redirected to the remote, the Host will not be able to print on its own printer until either:

   a. another connection is made. This sets the printer direction back to the Host.

   b. the Host hot key is pressed and the Host is restarted.

Selecting Active Configuration

2. A Host computer configured using COM1 can accept a call from a Remote using COM2. Both PC's do not have to use the same port in order to communicate.

File Transfer Notes

3. The *File Transfer Program Options* includes an option to allow deletion of entire directories. If set to *Yes*, you are able to delete all files and subdirectories within a directory with one operation. Set this option to *No* to prevent yourself from accidentally erasing entire directories. (Even if enabled, you are prompted several times before files and directories are deleted!)

4. You can use the TAB and BACKTAB to switch between the YOUR FILES and HOST FILES windows.

5. AWSEND works with calls made with pcANYWHERE III's ATERM program. The user interface is similar to the ASEND program.

Error Messages

6. If you get the message "user-name already in use" after entering your user-name, but you are sure that the name is not in use, check that the file named "AWxxxxxx.CNF" (where xxxxxx is your user-name) has read/write attributes.

7. The following message is displayed if you start the host with background file transfer enabled and the file transfer module cannot be loaded:

```
Unable to load file transfer module.
Error code returned from DOS: xxxx
```

where xxxx = 8, if not enough memory
xxxx = 2, if AWSEND.OVL not found

Using WordPerfect version 5.1

8. If you are running WordPerfect version 5.1 remotely using a mouse, set WordPerfect's "mouse acceleration" parameter to 1. Then, use the Norton pcANYWHERE mouse acceleration factor to adjust and control mouse movements. The mouse acceleration factor is listed under the *Preferences...Mouse* option.

Additional Notes

9. If you are using a VGA system for the remote PC, and you have installed Quarterdeck's QEMM memory manager, and you will be calling into host PCs that have monochrome adapters, you must tell QEMM to exclude memory used for monochrome adapters. You do this by adding the command line option:

`"EXCLUDE=B000-B7FF"`

in the CONFIG.SYS line that starts QEMM.

A

Modems and Cables

There are two types of serial connections:

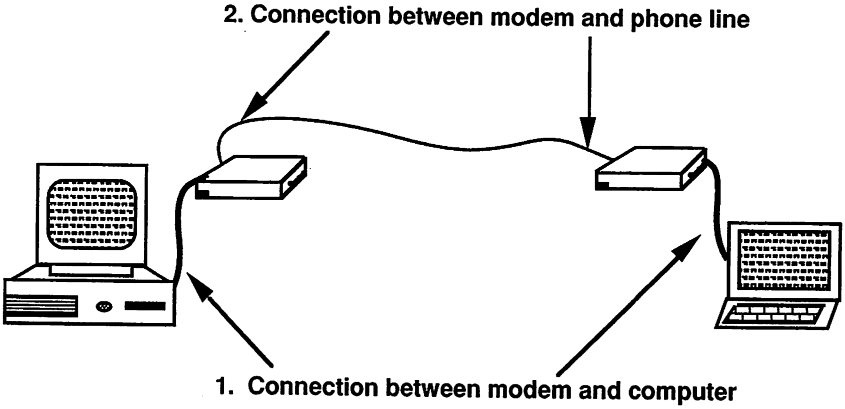
- **Direct connection.** The two computers are cabled together directly, using their serial ports.
- **Modem connection.** Each computer is connected to a modem. Each modem is connected to a phone line.

This chapter describes the cables and connectors for hooking up this equipment. The last section of the chapter lists correct modem switch settings for specific modems you can use with Norton pcANYWHERE.

Modem Connections

A serial configuration using a modem requires these two connections:

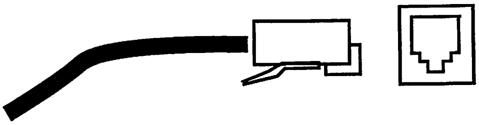
- the connection between the modem and the phone line
- the connection between the modem and the computer


2. Connection between modem and phone line
1. Connection between modem and computer

The computer is connected to the modem via the serial port on the computer. The modem is connected to the phone line via a phone cable. The phone line is connected to a standard phone jack.

CONNECTING THE MODEM AND PHONE LINE

Whether your modem is internal or standalone, you must connect it to the phone line. Most modems come with cables for this purpose: a standard RJ11 phone cable. Your modem manual should tell you where to attach the phone cable. Normally, internal modems have a port for a phone jack on the back of the computer; it may be marked. The port looks like the connector where your phone line attaches to the phone jack.



After connecting the modem to the phone cable, you connect the modem to the modular phone jack on the wall.

Note

There is another type of connection between the modem and phone line, which is uncommon. Acoustic coupled modems are not attached directly to the phone line. Instead, the phone's receiver is placed into two rubber cups on the modem. Obviously, an operator must be present to make this connection for serial communications. This type of connection can result in excessive "noise" on the phone line, and is rarely used now.

CONNECTING THE MODEM AND COMPUTER

If you have an internal modem, your computer dealer or hardware technician should attach it to your computer. If you have a standalone modem, these instructions apply to you.

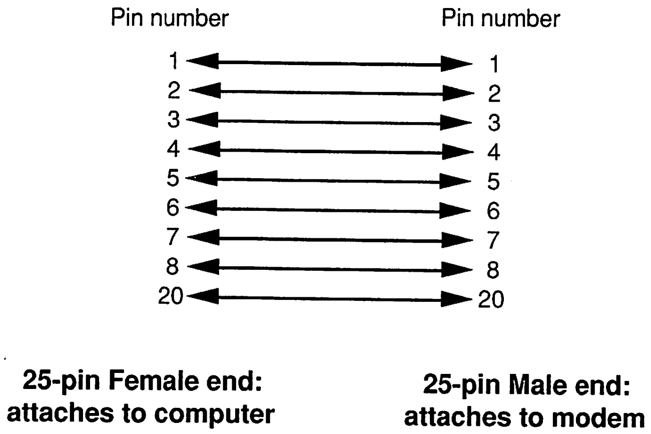
The cable you need to attach to your computer and modem has a female end, with holes rather than pins showing, and a male end, with pins. The female end attaches to your computer and the male end attaches to the modem.

Most systems are equipped with an IBM Asynchronous adapter board in their computer; this type of board requires an RS-232 cable with 25-pin connectors at either end.

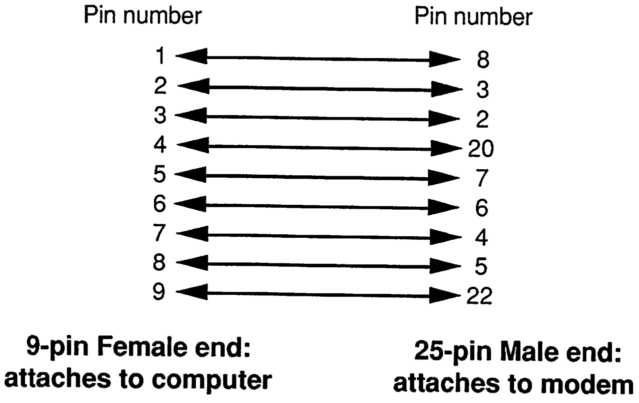
The IBM AT computer uses an IBM Serial/Parallel adapter and a standard IBM Serial adapter cable; you can tell easily if you have this type of connection, because the plug-in port on your computer (male) has nine pins. The IBM Serial adapter cable has nine holes on the female that connects to the computer and 25 pins on the male end that connects to your modem.

If you can't buy the cable you need for your computer, you can have one made. Talk to your computer dealer about this. Use one of the diagrams below as a guideline for the person who is making the cable.

If you are cabling a remote terminal, rather than a computer supported by Norton pcANYWHERE, follow the instructions at the end of this section for cabling and preparing the modem.


Pin number
Pin number
1 ↔ 1
2 ↔ 2
3 ↔ 3
4 ↔ 4
5 ↔ 5
6 ↔ 6
7 ↔ 7
8 ↔ 8
20 ↔ 20
25-pin Female end: attaches to computer
25-pin Male end: attaches to modem

This diagram shows the cable you will need if you are using an IBM Asynchronous adapter board. Pins that are not included here can be left unconnected.


Pin number
Pin number
1 ↔ 8
2 ↔ 3
3 ↔ 2
4 ↔ 20
5 ↔ 7
6 ↔ 6
7 ↔ 4
8 ↔ 5
9 ↔ 22
9-pin Female end: attaches to computer
25-pin Male end: attaches to modem

This diagram shows the cable connectors for the standard IBM Serial adapter cable.

Preparing the Modem

You should have your modem's manual on hand before you attempt to use it.

Before you try using an external modem, make sure it is plugged in and turned on.

If your modem uses switches for settings, and your system will be acting as *the host computer*, set them according to the following guidelines. Not all modems support all of these settings.

- Full duplex
- Answer mode
- Auto answer OFF for automatic modems
- Auto answer ON for non-automatic modems
- Show Data Carrier Detect (DCD) signal
- Let the computer control Data Terminal Ready (DTR) signal.

If your modem uses switches for settings, and your system will be acting as *the remote computer*, set them according to the following guidelines. Not all modems support all of these settings.

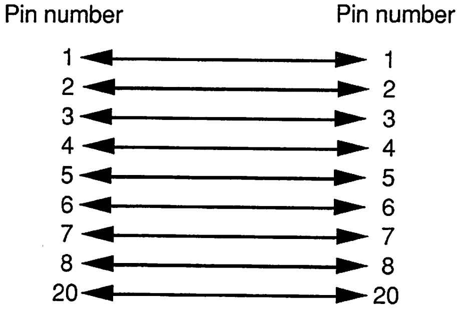
- Full duplex
- Originate mode
- Auto answer ON

The last section in this chapter shows correct switch settings for some popular modems.

Remote Terminals

Have the modem manual handy, as well as the manual for any terminal emulation software you are using.

In most cases, you will need a cable with a 25-pin male connector at each end.



25-pin Male end: attaches to modem

25-pin Male end: attaches to terminal

This diagram shows the minimum pin configuration for attaching a remote terminal to a modem.

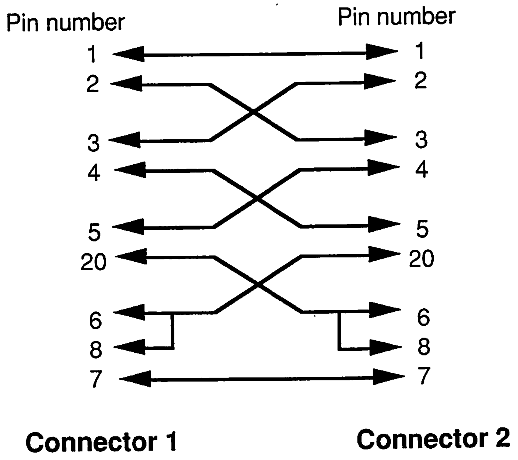
Follow the instructions above for preparing your modem. Be sure to use the remote settings.

Direct Connections

If you are cabling two computers together, you attach a single cable to the serial port on each machine. You should look at the ports on each computer to determine whether male or female connectors are needed at either end of the cable. This section describes three different situations, for different IBM computers and compatibles. This type of connection requires a cable called a reversing or null modem cable.

25-TO-25 PIN

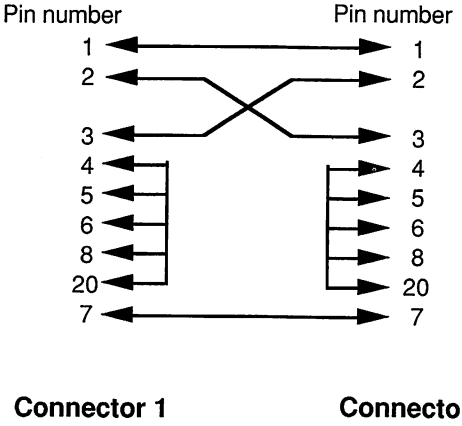
This type of cable is generally called for when you attach a PC or XT to an XT or PC. The diagram below shows how the cable should be wired. Remember to check the ports on the computer before ordering this cable. Make sure that you have the proper male/female connectors.



This shows the wiring of a standard asynchronous reversing cable, or null modem. Both ends have 25 pins or holes. This method is used to connect a PC or XT to a PC or XT.

In some cases this cabling does not work, and you must use another, less desirable, cable. Before you do so, make sure the two connected computers are using the same parity and the same baud rate in their hardware configurations.

The diagram below shows the connectors for the alternative type of cable you can use. This cable does not connect the wires normally used for flow control, but the wires still must be connected to the plugs, because Norton pcANYWHERE uses them to determine whether communications are possible.



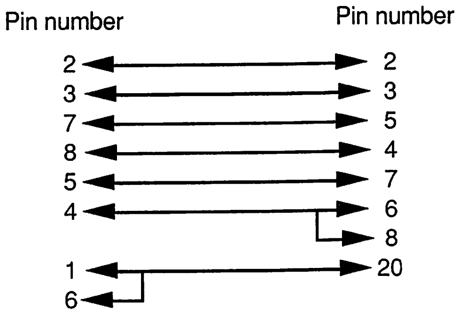
This diagram shows an asynchronous reversing cable often called a "cheater." Both ends have 25 pins or holes. If the standard reversing cable doesn't work correctly, use this method.

9-TO-25 PIN

If you are using the IBM AT Serial/Parallel adapter, you should first purchase an IBM Serial cable that converts the 9-pin connector on the adapter to a 25-pin RS-232 connector. Then simply follow the directions in the section immediately above.

This type of cable is often necessary for connecting an AT to a PC or XT. You connect the 25-pin end of the IBM Serial cable to the PC or XT port. The other end is attached to the AT.

Alternatively, you can have a single reversing cable made. Show the diagram below to the person who is making the cable.



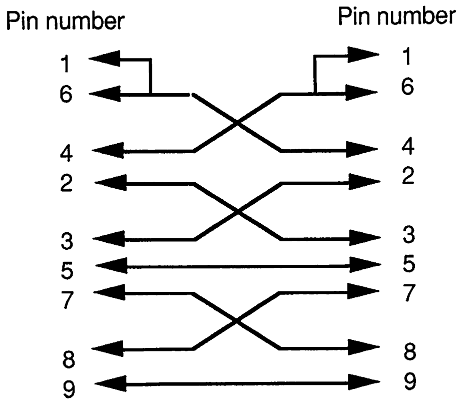
9-pin Female end: attaches to PC AT

25-pin Male end: attaches to PC XT

This reversing cable can be made to connect an AT to a PC or XT.

9-TO 9 PIN

This type of cable is often necessary for connecting two ATs.



Connector 1

Connector 2

This type of cable is used for connecting two computers that have 9-pin ports. Check the ports to see which connectors should be male and female.

CABLING TO A CRT TERMINAL

To ensure a good connection, you should have your terminal's manual on hand. Refer to the manual to set these parameters:

- Full duplex
- 1 stop bit
- 8 data bits
- No parity; use space parity if a "no parity" setting is unavailable

Use one of the cable diagrams in the two previous sections for a reversing cable, but check your ports first. Most terminals require a male connector.

Modem Switch Settings

Before using your modem with Norton pcANYWHERE, check to see whether it has external switches. If it does, check the switch settings and see that they are properly set to work with Norton pcANYWHERE. If your modem has internal switches, use the factory settings. Not all modems have switches.

In the sections below, we have included the settings for some popular modems. If your modem isn't listed, follow the guidelines below. You will have to check your modem manual to find out which switches support which functions. Don't worry if your modem does not have switches for all the functions.

HAYES SMARTMODEM

Switch	Remote Modem	Host Modem	Function
1	UP	UP	Support DTR
2	UP or DOWN	UP or DOWN	Digit codes
3	DOWN	DOWN	Send results
4	UP or DOWN	UP or DOWN	Echo commands
5	DOWN	DOWN	No auto-answer
6	UP	UP	Support DCD
7	UP for single line DOWN for multi-line	UP for single line DOWN for multi-line	Indicates type of jack
8	DOWN	DOWN	Allow commands

MULTITECH MULTIMODEM 224

Use these settings if there are eight switches:

Switch	**Remote Modem**	**Host Modem**	**Function**
1	UP	UP	Support DTR
2	UP or DOWN	UP or DOWN	Digit codes
3	DOWN	DOWN	Send results
4	UP or DOWN	UP or DOWN	Echo commands
5	DOWN	DOWN	No auto-answer
6	UP	UP	Support DCD
7	UP for single line DOWN for multi-line	UP for single line DOWN for multi-line	Indicates type of jack
8	DOWN	DOWN	Allow commands

Use these settings if there are four switches:

Switch	**Remote Modem**	**Host Modem**	**Function**
1	UP	UP	CTS forced on
2	UP	UP	Dial up operation
3	DOWN	DOWN	Blind dial
4	DOWN	DOWN	Asynchronous

US ROBOTICS COURIER HST

Switch	Remote Modem	Host Modem	Function
1	UP	UP	Support DTR
2	UP or DOWN	UP or DOWN	Digit codes
3	DOWN	DOWN	Send results
4	UP or DOWN	UP or DOWN	Echo commands
5	DOWN	DOWN	No auto-answer
6	UP	UP	Support DCD
7	UP for single line DOWN for multi-line	UP for single line DOWN for multi-line	Indicates type of jack
8	DOWN	DOWN	Allow commands
9	DOWN	DOWN	No hang on +++
10	UP	UP	Defaults from NRAM

B

Terminal Emulation

Terminal Emulation Keys

Frequently, PC users may want their PCs to also serve as terminals in order to provide access to a minicomputer or mainframe. Norton pcANYWHERE provides an easy and flexible way for a PC user to emulate a variety of popular terminals. In each of the following cases, the PCkey and terminal keys are provided. For example, let us assume that you as a remote PC user want to connect to a mainframe computer which uses VT100/220 terminals. If you want to simulate a someone pressing a <PF1> key on a VT100/220 terminal, you simply press the <F1> key on your IBM PC. It is that easy.

NOTE:
Many of the terminals listed below operate in two distinct modes: character and block. Norton pcANYWHERE only supports the character mode.

VT100/220 emulation

PCKEY	VT100/220 KEY
ALT-Q	NUMERIC PAD 7
ALT-W	NUMERIC PAD 8
ALT-E	NUMERIC PAD 9
ALT-R	NUMERIC PAD -
ALT-A	NUMERIC PAD 4
ALT-S	NUMERIC PAD 5
ALT-D	NUMERIC PAD 6
ALT-F	NUMERIC PAD 7
ALT-Z	NUMERIC PAD 1
ALT-X	NUMERIC PAD 2
ALT-C	NUMERIC PAD 3
ALT-V	NUMERIC PAD 0
ALT-B	NUMERIC PAD .
ALT-N	NUMERIC PAD Ent.
F1	PF1
F2	PF2
F3	PF3
F4	PF4
F6	F6
F7	F7
F8	F8
F9	F9
F10	F10
HOME	FIND
UP	UP
LEFT	LEFT
RIGHT	RIGHT
END	SELECT
DOWN	DOWN

VT100/220 emulation (continued)

INS	INSERT HERE
DEL	REMOVE
SHF1	F11
SHF2	F12
SHF3	F13
SHF4	F14
SHF5	F15 (Help)
SHF6	F16 (Do)
SHF7	F17
SHF8	F18
SHF9	F19
SHF10	F20
CTRL-PGDN	NEXT SCR
ALT-1	PF1
ALT-2	PF2
ALT-3	PF3
ALT-4	PF4
CTRL-PGUP	PREV SCREEN
ALT-5	CR or CR LF
BS	BS or DEL
CTRL-BS	DEL or BS

DG100/200 keyboard emulation

PCKEY	DG100/200 KEY
BS	NEW LINE
ALT-C ALT-3	CTRL-F13
ALT-C ALT-5	CTRL-F14
ALT-C ALT-8	CTRL-F15
ALT-C ALT-9	CTRL-SHF13
ALT-C ALT-0	CTRL-SHF14
ALT-C ALT-4	CTRL-SHF15
F1	F1
F2	F2
F3	F3
F4	F4
F5	F5
F6	F6
F7	F7
F8	F8
F9	F9
F10	F10
HOME	HOME CUR
UP	UP
LEFT	LEFT
RIGHT	RIGHT
DOWN	DOWN
DEL	CHAR DEL
SHF1	SHF1
SHF2	SHF2
SHF3	SHF3
SHF4	SHF4
SHF5	SHF5
SHF6	SHF6
SHF7	SHF7
SHF8	SHF8
SHF9	SHF9
SHF10	SHF10
CTRL-F1	CTRL-F1
CTRL-F2	CTRL-F2
CTRL-F3	CTRL-F3
CTRL-F4	CTRL-F4
CTRL-F5	CTRL-F5

DG 100/200 (continued)

PCKEY	DG100/200 KEY
CTRL-F6	CTRL-F6
CTRL-F7	CTRL-F7
CTRL-F8	CTRL-F8
CTRL-F9	CTRL-F9
CTRL-F10	CTRL-F10
ALT-F1	CTRL-SHF1
ALT-F2	CTRL-SHF2
ALT-F3	CTRL-SHF3
ALT-F4	CTRL-SHF4
ALT-F5	CTRL-SHF5
ALT-F6	CTRL-SHF6
ALT-F7	CTRL-SHF7
ALT-F8	CTRL-SHF8
ALT-F9	CTRL-SHF9
ALT-F10	CTRL-SHF10
ALT-3	F13
ALT-4	F14
ALT-5	F15
ALT-8	SHF13
ALT-9	SHF14
ALT-0	SHF15
F11	F11
F12	F12
SHF11	SHF11
SHF12	SHF12
CTRL-F11	CTRL-F11
CTRL-F12	CTRL-F12
ALT-F11	CTRL-SHF11
ALT-F12	CTRL-SHF12
CTRL-BS	-

IBM 3101 emulation

PCKEY	IBM 3101 KEY
F1	F1
F2	F2
F3	F3
F4	F4
F5	F5
F6	F6
F7	F7
F8	F8
HOME	HOME CUR
UP	UP
LEFT	LEFT
RIGHT	RIGHT
END	
DOWN	DOWN
DEL	DEL
Ctrl-End	CLR EOP
Ctrl-PgDn	CLEAR
BS	BS
CTRL-BS	

Televideo 912 emulation

PCKEY	TV912 Key
Alt-F n	FUNCT-n
F1	F1
F2	F2
F3	F3
F4	F4
F5	F5
F6	F6
F7	F7
F8	F8
F9	F9
F10	F10
HOME	HOME CUR
UP	UP
LEFT	LEFT
RIGHT	RIGHT
END	LINE DEL
DOWN	DOWN
INS	CHAR INS
DEL	CHAR DEL
SHF1	SHF1
SHF2	SHF2
SHF3	SHF3
SHF4	SHF4
SHF5	SHF5
SHF6	SHF6
SHF7	SHF7
SHF8	SHF8
SHF9	SHF9
SHF10	SHF10
Ctrl-End	PAGE ERASE
Ctrl-PgDn	CLEAR SCR
Ctrl-Home	LINE INS
Alt-1	F11
Alt-2	SHF11

Televideo 925 emulation

PCKEY	TV912 Key
Alt-F n	FUNCT-n
F1	F1
F2	F2
F3	F3
F4	F4
F5	F5
F6	F6
F7	F7
F8	F8
F9	F9
F10	F10
HOME	HOME CUR
UP	UP
LEFT	LEFT
RIGHT	RIGHT
END	LINE DEL
DOWN	DOWN
INS	CHAR INS
DEL	CHAR DEL
SHF1	SHF1
SHF2	SHF2
SHF3	SHF3
SHF4	SHF4
SHF5	SHF5
SHF6	SHF6
SHF7	SHF7
SHF8	SHF8
SHF9	SHF9
SHF10	SHF10
Ctrl-End	PAGE ERASE
Ctrl-PgDn	CLEAR SCR
Ctrl-Home	LINE INS
Alt-1	F11
Alt-2	SHF11
BS	BS
CTRL-BS	

vt52 emulation:

PCKEY	vt52 Key
ALT Q	KEYPAD 7
ALT W	KEYPAD 8
ALT E	KEYPAD 9
ALT R	KEYPAD -
ALT A	KEYPAD 4
ALT S	KEYPAD 5
ALT D	KEYPAD 6
ALT F	KEYPAD ,
ALT Z	KEYPAD 1
ALT X	KEYPAD 2
ALT C	KEYPAD 3
ALT V	KEYPAD 0
ALT B	KEYPAD .
ALT N	KEYPAD ENTER
UP	UP
DOWN	DOWN
RIGHT	RIGHT
LEFT	LEFT
SHF1	F11(ESC)
SHF2	F12(BS)
SHF3	F13(LF)
ALT-1	PF1
ALT-2	PF2
ALT-3	PF3
ALT-4	PF4
F1	PF1
F2	PF2
F3	PF3
F4	PF4
BS	BS
ENTER	ENTER
CTRL-BS	

Wyse 50 emulation

PCKEY	Wyse 50 Key
TAB	HORIZ TAB
BS	BS
CTRL-BS	CHAR DEL
BACKTAB	REVERSE TAB
Alt-F n	FUNCT-n
F1	F1
F2	F2
F3	F3
F4	F4
F5	F5
F6	F6
F7	F7
F8	F8
F9	F9
F10	F10
HOME	HOME CURSOR
UP	UP
LEFT	LEFT
RIGHT	RIGHT
END	LINE ERASE
DOWN	DOWN
INSERT	INSERT CHAR
DELETE	DELETE CHAR
F11	F11
F12	F12
SHF3	F13
SHF4	F14
SHF5	F15
F16(SHF6)	F16
CTRL-F1	SH LINE ERASE
CTRL-F2	SH PG ERASE
CTRL-F3	SH LINE INS
CTRL-F4	SH LINE DEL
CTRL-F5	SH CHAR INS
CTRL-F6	SH CHAR DEL
CTRL-END	PAGE ERASE
CTRL-PGDN	CLEAR SCREEN
CTRL-HOME	INSERT LINE

Wyse 50 (continued)

PCKEY	Wyse 50 Key
CTRL-PGUP	DELETE LINE
F11	F11
F12	F12
BS	BS
CTRL-BS	127

LSI ADM3A

PCKEY	ADM3A Key
HOME	HOME CUR
UP	UP
LEFT	LEFT
RIGHT	RIGHT
DOWN	DOWN

ADDS Viewpoint Emulation

PCKEY	ADDS Key
F1	F1
F2	F2
F3	F3
HOME	HOME CUR
UP	UP
LEFT	LEFT
RIGHT	RIGHT
DOWN	DOWN
SHF1	SHF1
SHF2	SHF2
SHF3	SHF3

Hazeltine 1500 emulation

PCKEY	ADDS Key
HOME	HOME CUR
UP	UP
LEFT	LEFT
RIGHT	RIGHT
DOWN	DOWN

C

Glossary

This glossary lists terms that are used in Norton pcANYWHERE and in remote computing in general. When a term used in a definition is defined elsewhere in this glossary, it appears in italics, *like this.* Terms that are defined within an explanation are shown in bold, **like this**.

ANYWHERE HOST

A *host* computer system that is equipped with Norton pcANYWHERE.

ANYWHERE SESSION

A remote computing session; both the *host* and *remote* systems are equipped with Norton pcANYWHERE.

ASYNCHRONOUS COMMUNICATIONS

You may have heard this term describing your modem, since most modems are designed for asynchronous communications. Norton pcANYWHERE and other personal computer communications products support asynchronous communications. This simply means that the timing of the two computers that talk to each other is not synchronized. The characters are sent one at a time, and there is no preset amount of time that passes between the sending of one character and the sending of the next character. Asynchronous is often abbreviated to **async** or **asynch**.

ATTRIBUTES

Attributes are visual features used by software applications to set off certain parts of a screen. Here are some examples:

- Highlighting—intensifies, to indicate boldfacing, for example.
- Reverse video—reverses background and foreground; e.g. from black on white to white on black.
- Blinking—makes a character flash on and off.

Not all monitors and display adapters support all attributes, so you may wish to control the way such attributes are shown on the remote computer when it reflects the display from the *host*. You can do this by asking Norton pcANYWHERE to translate certain attributes.

AUTOMATED PROCEDURE

A Norton pcANYWHERE automated procedure allows the remote user to set up predefined remote computing sessions that can take place in the absence of any human operators. This is very convenient for performing certain activities—routine, repeated file backups, for example—during non-business hours.

AUTODIAL MODEM

All *modems* sold these days are autodial modems. With an autodial modem, you can dial a phone number from the computer keyboard, and this means that products like Norton pcANYWHERE can store telephone numbers for your use.

BAUD RATE

See *Data rate*

BIT

Serial communications require the sending of data bit by bit. Seven or eight bits make up a character of information. For most telecommunications including *Norton pcANYWHERE sessions*, eight bits are preferred, because this method allows the transmission of special data, like word processing codes.

BREAK LENGTH

A break condition signal is a special signal used in some computer applications. Different terminals generate this signal for different periods of time. The duration of the signal is called the break length. In some special circumstances it is necessary to adjust this break length to accommodate certain software applications on the *host computer*.

CALLBACK NUMBER

This is the phone number of a remote user who calls a host computer. Norton pcANYWHERE allows it to be stored on the host system. If there is a callback number, the host system will wait a specified amount of time (called the **callback delay**) and then call the remote user back to reestablish a connection. A callback number establishes an extra measure of security, necessitating not only a password but a specific phone number for the remote user. It is also used to ensure that the host system bears most of the phone costs.

CALLER ENTRY

The host user maintains a list of remote users called **caller information**. Each item on the list is called a caller entry. A caller entry consists of a form that specifies the password for the remote user, and a lot of other information that governs how the host and remote systems will be coordinated. A host operator can also set up a **default caller entry** which then is used for any remote user who attempts to access the host system.

CARRIER DETECT

A *connection detection* method used by most modems.

CALLER INFORMATION ENTRY

See *Caller entry* above.

CARRIER LOSS

A physical break in the connection between two computers.

CHAT MODE

Chat mode, is a way of telecommunicating that Norton pcANYWHERE and other products support. While on-line with another computer, you switch to conversation mode in order to "chat" with the user at the other end. Chat mode allows you to type in messages at the keyboard and see the other user's response.

COMMAND LINE ARGUMENT

A command line argument is a series of Norton pcANYWHERE commands that are entered at the DOS prompt, allowing *host* computer set-up, play back of recorded screens and sessions, and execution of *automated procedures*.

COMMUNICATIONS PORTS

Your computer probably has both serial and parallel communications ports. Most modern systems include more than one serial port, since separate ports are required when you wish to use a serial printer and a modem. A communications port, or **comm port**, is made up of the hardware connector (or plug) and the location in the computer where information can be exchanged with another piece of equipment, whether it be a printer, a modem, or another device inside or outside the computer itself. The location of a communications port is called its **address** and is used by software programs to access the communications port. When the communications port leads to an external piece of equipment, it is connected to it by a **serial** or **parallel cable**.

COMPUTER NAME

The computer name is the name you assign to your computer for Norton pcANYWHERE remote computing sessions. It is always a good idea to name your computer; the name is used to identify your system during many remote computing operations.

CONFIGURATION

See *Hardware configuration.*

CONNECTION DETECTION

Whether you are using a modem or a direct connection, you must specify some method by which your system determines when a physical connection is made with another computer, and when the connection ends. (Norton pcANYWHERE uses two *hardware configuration* fields: *Connection started by* and *Connection ended by.*)

When you are communicating using modems, the modems connect to your computer via a cable. Different pins in the connectors of those cables carry different signals back and forth between the computers and modems. They use these signals to detect a connection.

Almost all modems send a signal called a *carrier detect* over a pin with the same name.

In very rare cases, and depending upon your equipment, you may use other signals, such as Clear To Send (CTS), Ring Indicator (RI) or Data Set Ready (DSR).

DATA RATE

The speed at which a modem or directly connected computer can communicate is expressed as its data or baud rate, which is generally equivalent to the bits per second (bps) that can be transmitted. (In fact baud rate and bits per second are technically different, but most people use the terms interchangeably.) A character is made up of seven or eight bits. Whether two computers communicate via modem or directly, their modem speeds must be the same.

The slowest modems work at baud rates up to 300 baud, and the rate increases up to 19200 baud. Now all modems can operate at variable speeds.

Using *direct connection*, most AT-class computers can communicate at speeds of 19200 or 38400 baud, and most 80386 computers can use speeds up to 115200. The speed at which a computer can communicate directly depends on its megahertz (MHZ) speed.

DIRECT CONNECTION

This term describes a situation where two computers are connected with a cable and no modem. They are connected via their *serial communications ports*.

DTR STATE

DTR stands for Data Terminal Ready. It describes a connector pin and signal that can be turned on or off. Normally these signals are left on at all times, but in rare cases it is on only when a connection is made, or left off at all times.

ERROR CORRECTION

Faulty phone connections can cause errors to appear on the remote screen. These errors may be occasional incorrect characters that don't belong on the screen, or may be quite severe. Norton pcANYWHERE can correct these errors by retransmitting incorrect data before it is even displayed on the screen.

EXTERNAL MODEM

These *modems* are independent from the computer and have sockets to connect a phone line, a computer, and a power supply. They usually connect directly to the phone line, via a phone jack. This is called a **modular** connection.

Some old-fashioned modems connect to the phone via the phone handset, which fits into two cups on the modem. This type of standalone modem is inferior, because it picks up random static and phone line noise. It is called an **acoustic coupled modem** and is necessary when you must use a telephone with no phone jack– a pay phone, for example.

Standalone modems have one obvious advantage: they are portable.

FILE TRANSFER

File transfer is just what it sounds like. While you are on-line during a Norton pcANYWHERE session, you may decide to send files from the host to the remote computer, or vice versa. If you elect to transfer files, Norton pcANYWHERE allows you to select them and effect a transfer.

FLOW CONTROL

Flow control helps prevent data from being transmitted too fast for the receiving computer to handle it. If the sending computer transmits too much data to be stored by the modem, some of that data "overflows" and is lost. Flow control is handled by hardware connections or by software.

Most 9600-baud, high speed modems need and use **hardware flow control**, because they store data before communicating it over the telephone lines. *Direct connections* also use this kind of flow control. Hardware flow control is handled by a connection between the modem and the computer, or on the line connecting two computers, using connectors that send signals called **RTS/CTS** (Request To Send and Clear To Send).

Another type of flow control is software-driven: special flow control characters are sent to stop and re-start the transmission, generally so that the receiving computer can catch up with the flow of data from the sending computer. The flow control characters are often called **XON/XOFF** characters. This type of flow control is not used for *pcANYWHERE sessions.*

GATEWAY

A gateway consists of a computer on a LAN, equipped with Norton pcANYWHERE/LAN and a modem. LAN users reach computers outside the network via the gateway; *off-the-LAN* users can reach computers on the LAN via the gateway. The user at the gateway activates the gateway, so that his or her modem can be used by others on the network. Since gateway operation is in the background, the user at the gateway is not interrupted by any sessions that take place.

HARDWARE CONFIGURATION

A hardware configuration is a collection of settings that you specify to tell Norton pcANYWHERE about how you are going to communicate with another computer. A configuration is made up of: a *communications port*, a brand and model of *modem* or *direct connection*, a *data rate*, a method of *flow control*, *parity*, starting and ending *connection detection*, *break length*, *DTR state*, and *RTS state*. If you are using a modem, you can also specify other settings that relate to telephone communication; for instance, the ring to answer on and the number of redial attempts.

HOST

The host computer system is controlled by the *remote* user in a remote computing session.

HOST DIRECTORY ENTRY

See *Host entry* below.

HOST ENTRY

The host entry is kept in Remote Main Menu **Host information.** For each host that a remote user accesses, on the directory, a host entry form allows the remote user to automate the connection process by including such information as the configuration to use to reach the host, the host *computer name*, the host phone number (if any), and the password needed to access the host.

HOST INFORMATION ENTRY

See *Host entry* above.

HOST OPERATING MODE

Norton pcANYWHERE/Host permits several different host operating modes. The host mode determines how Norton pcANYWHERE/Host works on the system. For example, the host system can be set to accept calls automatically whenever a remote system calls in—with no host user intervention. Norton pcANYWHERE/Host can be resident, so that the host system may run applications and yet have Norton pcANYWHERE/Host available when it is needed. This automatic mode is often used when the host is unattended. If the host does not need to have applications running while not in a remote computing session, it can be left awaiting a connection, with Norton pcANYWHERE/Host active and on the screen. Still another host operating mode is often used for technical support and host user convenience: Norton pcANYWHERE/Host stays resident and is activated only when a host user enters a special *hot key* sequence.

HOT KEY

The keystroke sequence that brings up a Norton pcANYWHERE menu during an on-line session. The *host* hot key is usually **<Alt-Right-Shift>** (hold down the Alt key while pressing the right hand shift key). The *remote* hot key is usually **<Ctrl-Right-Shift>**.

INACTIVITY TIMEOUT

When a *remote* user accesses a *host*, he or she may tell Norton pcANYWHERE to sever the connection on the host end if a certain time period passes with no activity from either end. This time period, expressed in minutes, is the inactivity timeout. Establishing an inactivity timeout period safeguards against the phone line being tied up by the host if the remote user forgets to end the session when work is completed.

INCOMING CONFIGURATION

This definition is relevant to Norton pcANYWHERE/LAN.The incoming *configuration* is specified by the *gateway* computer user. It describes the hardware connection that initially links a computer to the gateway. If the user is another person on the network who wishes to use the gateway computer to reach a system off the LAN, the incoming configuration is a network connection. If someone outside the network wants to access the gateway in order to reach another computer on the network, the incoming configuration is most often a modem connection. See *hardware configuration* and *outgoing configuration.*

INTERNAL MODEM

Currently, more and more computers come equipped with internal *modems*, or can be equipped with them. An internal modem is a circuit board installed in a computer. It generally has two connectors, or jacks, which are visible at the back of the computer. One connects directly into the phone line; the other can be connected to a telephone handset.

LOCAL AREA NETWORK (LAN)

A local area network is a private communications system, consisting of both hardware and software. It links two or more computers in the same building or a limited geographic area. LANs help many computers share information, software applications, and resources such as printers and modems. Norton pcANYWHERE/LAN allows remote users to access a LAN via a single *gateway* computer on the LAN. It also permits LAN users to share *modems* and printers.

LOGGING

Norton pcANYWHERE can log successful connections to a computer. This means that Norton pcANYWHERE keeps track of who connects to the computer, the time and date when they came on-line, the time and date when the connection ended, and additional information that you can enter. The record is kept in a **log file**. This feature can be customized for billing purposes.

MASTER PASSWORD

See *Password.*The master password is a special password reserved for the user(s) who determines overall preferences, maintains user passwords, and performs other sensitive activities.

MODEM

Modems are electronic devices that allow two computers to talk to one another over telephone lines. One computer "talks" via outgoing signals sent through a *communications port*. The modem intercepts those signals and translates them into a form that can be carried over phone lines. At the receiving end, a second modem translates the signals back into the language of computers before they are received via the communications port in the second computer. The act of translating computer signals is called **mo**dulating and **dem**odulating– hence the word "modem."

The speed at which modems send and receive information is called the *data rate*. Different modems are capable of different transmission speeds.

Standalone modems are external to the computer; they may be automatic, or less often, manual. *Internal modems*, which are inside the computer, are always automatic.

MODEM INITIALIZATION

Norton pcANYWHERE and other telecommunications software send a message to your *modem* when they are started up. This modem initialization string tells the modem to be ready to answer or dial the phone.

MONITOR

In monitor mode, which should only be used in unusual diagnostic or support situations, the *remote* user sees all the control codes for the actions (for example, cursor movement, carriage returns) that are called for on the host, but the actions don't actually take effect. Monitor mode is used for technical support troubleshooting.

NON-ANYWHERE HOST

A *host* computer system that does not have Norton pcANYWHERE or Norton pcANYWHERE/LAN, but is accessed by a *remote* user whose system is equipped with Norton pcANYWHERE or Norton pcANYWHERE/LAN.

NULL MODEM

A type of cable used to make a *direct connection* between two computers. Each end is attached to a *serial communications port* on one of the computers.

ON-LINE

Connected to another computer system, or communicating directly with a modem.

OUTGOING CONFIGURATION

This definition is relevant to Norton pcANYWHERE/LAN. The outgoing configuration specifies the second connection a user will make, after he or she has used the *incoming configuration* to reach the *gateway* computer. If the user is on the network with the gateway, he or she will most often need a modem connection for the outgoing configuration. That way, he or she can go out of the network via the gateway modem. If the user is *off-the-LAN* and has used a serial modem connection as his or her incoming configuration, the outgoing configuration will be a network connection, so that the user can reach one of the LAN systems. See *incoming configuration* and *hardware configuration.*

PARITY

In addition to the *bits* that make up a character, special "framing" bits must be sent so that the receiving computer knows when one character ends and another begins. For that reason, the character or data bits, must be preceded by a **start bit**, and followed by a **stop bit**. Because groups of bits make up a binary representation of a characters, each bit is a zero (0) or a one (1). Therefore, when telecommunicating, you need only specify a stop or start bit. For example, if the stop bit is 0, the start bit will necessarily be 1.

A parity bit is yet another 0 or 1 sent with the character bits. It provides a simple means of error checking through addition. Added to the other bits in a specific character, it results in an odd or even number. You decide whether the sum total number will be odd or even by setting **odd parity** or **even parity**. In half the cases where characters are sent incorrectly, the parity bit will reveal the problem. Parity bits really only work for seven-bit characters; for eight-bit characters, you specify **no parity**.

In a pcANYWHERE session, Norton pcANYWHERE automatically chooses no parity for you, because that's the setting you use when both parties are running Norton pcANYWHERE. You only have to think about parity when you are in terminal mode, or you are communicating with a non-ANYWHERE host who requires a certain parity setting.

There are two other parity settings that are rarely used: **mark parity** and **space parity.** Mark sets the parity bit to 1, and space sets the parity bit to 0.

PASSWORDS

Passwords in computing work like passwords in spy stories—they are verbal keys to admit you into an area that is off limits to the uninitiated. A password might give you access to your mailbox on a LAN the same way a key opens a post office box. In fact, passwords are most often used in network computing and remote computing, where unauthorized users might access sensitive information, or perform activities that could interfere with others.

In Norton pcANYWHERE, the *host* user can require a password for access to a host computer. They can specify certain settings for the users of each password, which not only provide extra security, but make it easier for that particular user to get maximum benefits from the host.

RECORDING

Norton pcANYWHERE/Remote can record all the screens that are displayed during a *remote computing* session, from the standpoint of the remote user, including keystrokes and screens. Individual screens can also be recorded. The session or screen is saved in a **recording file.** Later on, you can play back a session. This feature is often used for technical support.

REMOTE

In a *remote computing* session, the **remote computer** is the computer that is in control of the ***host* computer** where the information or software needed by the **remote user** is located. The remote user can access the directory of the host computer, and run software on it; the remote computer becomes a *terminal* for the host computer.

REMOTE COMPUTING

Remote computing means exactly what it sounds like: computing from a distance. More than just two computers talking to one another, it implies that a *remote* computer is using the resources of a *host* computer. Norton pcANYWHERE is remote access software that facilitates remote computing, whether the remote computing user is a salesperson checking the headquarters computer, a staff member accessing the office computer from home, or a data entry supervisor on one floor helping an operator on another floor of the same building.

REMOTE TERMINAL

A *remote* system not equipped with Norton pcANYWHERE. It uses a terminal emulation/communications program to access an *Norton pcANYWHERE host.*

RTS STATE

RTS stands for Request To Send. It describes a connector pin and signal that can be turned on or off. Normally these signals are left on at all times, but in rare cases it is on only when a connection is made, or left off at all times.

SCANNING

This term refers to a process whereby Norton pcANYWHERE checks the screen to see if anything has changed on the host side. In rare cases you may need to change the time delays between scans.

SERIAL COMMUNICATIONS

Telephone lines and *direct connection* cables require serial communications, where bits are sent one at time, single file. Serial printers receive information sent this way too. Serial communications take place via a computer's *serial communications port.*

SERIAL COMMUNICATIONS PORT

This is a communications port that connects the computer to a device that sends or receives serial communications. This port is used by modems, some printers, and direct connections between computers; a piece of equipment that uses a serial communications port is called a serial device. Software programs refer to serial ports as COM1, COM2, etc.

SNOW

Some color displays cause snow (just like the static on a TV set) on the remote or host screen. Norton pcANYWHERE can eliminate snow when it does occur.

SYNCHRONIZATION

When a *remote* user is running a software application on a *host* computer, that application may perform frequent screen updates (while scrolling through text, for example, in a word processing program). In this case, you can allow Norton pcANYWHERE to synchronize the host computer with the remote computer, which will mean that each one of those screen updates must be fully completed and displayed before the application can proceed.

TERMINAL MODE

In Norton pcANYWHERE terminal mode, the computer in terminal mode is like a terminal for the host system. Terminal mode is used by the *remote* when the *host* does not have Norton pcANYWHERE. This mode is useful when connecting to an on-line service. Terminal mode can also be used by advanced users who wish to type commands directly to their modem.

TERMINAL EMULATION

A terminal emulation program allows a computer to act like a terminal or computer of a specific make and model. Terminal emulation is used in telecomputing when the communicating computers are not of the same type and are not compatible. In this case, one of the computers imitates a terminal to which the other computer can talk.

VOICE-FIRST CONNECTION

This type of connection is selected when you are using Norton pcANYWHERE to communicate via modem, and you wish to talk first, then change your voice connection to a data connection for remote computing. This generally requires changing the way your modem connects to the telephone. Norton pcANYWHERE prompts you through this process.

Index

A

Abbreviated menu file transfer 210
Absence of an operator 179
ACS 34, 35
Active keyboards during session 98, 128-129
Activity Log 356-360
Additional modem initialization string 71, 81
Address 68
Adjust speed to modem 81
Advanced graphics mode detection 111
Allow any password on reconnect 126
Allow caller to blank screen 99
Allow caller to change host mode 102
Allow caller to reboot host 99
Allow incoming calls 89
Allow pop-up (background) file transfer 85, 89, 113, 210
Allow remote mouse 113
Allow scanning while host busy 112
Allow special keyboard handler 101
Allow use of <Ctrl-Break> 100
<Alt> key
    Testing 353
ANSWER 256

ANYWHERE host 16, 131, 149, 193, 345
ANYWHERE session 133–134
Arguments
    In script file 247, 252
Arithmetic expression
    Command to begin 289
ASCII 151, 225
    Character codes 330
    Text files 242
ASCII file transfer preferences 154
    Character pacing 154
    Download options 155
    Download timeout 155
    Line pacing 154
    Pace character 154
    Upload options 155
Ask Caller 104, 230, 363
Asynchronous communication server 24, 30
Attribute Translation 167, 197
Attributes
    Setting 316
Auto-wrapping 373
AUTOEXEC.BAT 196, 206, 348
    Testing 348
Automated Procedures 133, 176-190
    Executing 180
    File transfer overwrites 179
    Host operating mode 185
    If error occurs 186
    Inactivity timeout 186
    Operations 176, 187
        DOS command line 188
        File name field 189
    Retries 184
    Sessions 181
    Testing 183
    Time to call 183
Automatic graphics detection 351
Automating host startup 206
AW.RCD 151
AW.SPL 164
AWLOGOFF 142, 240
AWREMOTE 38
AWSEND 113, 210, 211, 212-215, 238
    Command lines 213
    Selecting a Protocol 213
    Error Level Values 215
AWSEND file transfer preferences 156-157

    Allow deletion of directories 157
    Compression 157
    Crash recovery 157
    Destination file 156
    Protocol 157

B

Background
    Setting colors for 322
Background file transfer 85, 113, 210, 211
Backing up your disks 1
Base port address 68
BAUD 250
BEEP 256
Begin Host Operation 50, 84, 86, 91, 134
Billing Detail 361
Billing Summary 362
BIOS Extended Keyboard Support 353
Blank host screen 130
Blink attribute 167, 198
BREAK 223, 256
Break length 78, 250
Break signal 256
BRKLEN 250
Buffer
    Clearing memory 312

C

Call 140
Call Remote 90, 93,94
Callback phone number 106, 178
Call log 103
Caller entry
  Allow special keyboard handler 101
  Allow use of <Ctrl-Break> 100
  Allow user to blank host screen 99
  Allow user to change host mode 102
  Allow user to reboot host 99
  Default 49
  DOS command line after connect 107
  Initial print destination 103
  Log calls 103
  Password 98
  User subject to inactivity time 102
  User's callback phone number 106
  User's maximum time per session 105
Caller Information 47, 97
Caller Information List
  Yes/No 49
  First use 49
Caller Names 48
Caller subject to inactivity time 102
Calling
  From host 119
  From terminal 141-142, 229-239
CANCEL 250
Cancel And Remove From Memory 90, 93
Cancel host operation 144, 185
Cancel monitoring 317
Cancel pcANYWHERE 93
Carriage returns 77, 172
Carrier detect (DCD) 71, 77
Carrier loss 123
Case sensitivity
  For string comparisons 322, 328
  For passwords 127
CD 257
CDELAY 250
CGA video adapters 350
Character
  Converting to uppercase/lowercase 333
  Deleting 269

  - Sending 312
  - Wait for receipt of 334
- Character delay
  - Setting default 317
- Chat mode 17, 120, 193-194, 202
- Chat with Host User 193
- Chat With Remote User 202
- CLEAR BOL 257
- CLEAR BOP 258
- CLEAR EOL 258
- CLEAR EOP 259
- CLEAR SCREEN 259, 370
- CLOSE 260
- Color Menu 118
- Colors
  - Setting screen 116-118, 316, 322
  - Testing 352
- COLUMN 250
- Comm port See Communications port
- Command 253-342
  - Categories 247
  - Execution on error 294
  - Files 176
- Command line to execute 188, 293
- Command to execute 107
- Command to load host in high memory 121
- Command line 206-209
  - Arguments 207-209
  - Examples 209
  - Options 208
  - Tailored to host users 207
- Comments 248
- Communication line
  - Waiting for silence 336
  - Waiting for specified time 337
- Communication port 304, 344
  - Receiving a single byte 302
- Communications
  - Direct connect 73-74
  - Parameters 65
  - Testing 348
- Communications Tests 348
- CompuServe 29
- Computer naming 23, 83, 114, 160
- Conditional processing
  - Script files 283
- CONFIG.SYS 348
  - Testing 348

Configuration See Hardware configuration
Configuration Form 43
Configuration Name 46, 147
Configuration test 349
Connect Options 140
  Call 140
  Voice first 141
  Wait for a call 141
Connect To Host 51
Connect Via List of Hosts 132, 134, 135, 139
Connection 91, 270
  Command to execute if lost 294
  Making a 270
  Modifying parameters 90
  Monitoring 318
  Sequence for a successful connection 86
  Severing automatically 129
  Started/ended by modem response 76-78
  Terminating 282
  Waiting for a 256
Constants 246
Control codes 226
COPY 260
CREATE 261
<Ctrl> key
  Testing 353
<Ctrl-Break> 100
<Ctrl>-C 100
CTS (Clear to send) 77, 250
CURDIR 250
Current Palette 119
Cursor
  Handling 257, 258, 259, 262-266, 269, 272, 284
  Movement 55, 369-370
  Testing 351
CURSOR BLOCK 262
CURSOR DOWN 262
CURSOR HOME 263
CURSOR LEFT 263
CURSOR LINE 264
CURSOR OFF 264
CURSOR POSITION 264
CURSOR RESTORE 265
CURSOR RIGHT 265
CURSOR SAVE 266
CURSOR UP 266

D

Data
  Clear receive buffer of 303
  Compression 72, 113
  Displaying on screen 324
  Echoing to screen during file transfer 318
  Receiving/transmitting with translation table 327
Data carrier detect (DCD) signal 250, 334
Data rate 72-74
DATE 250
Date
  Setting for file 319
  To call 184
DCD see Data carrier detect
Declaration statement 243
DECRYPT 267
Default
  Configuration 42, 66
  Password 125, 132
  Phone number 119, 208
DEL 268
Delay before callback attempted 121-122
DELETE CHAR 269
DELETE LINE 269
DESQView 201, 239
Device/Port 68-69
Diagnostics see Hardware Diagnostics
DIAL HOST 270
DIAL NUMBER 271
Dial type 80
Dialing 65, 79
DIR 271, 324
Direct Connect/Terminal Mode 137
Direct connection 19, 22, 65, 68, 69, 73-74, 142
Directives 248
Directory
  Creating 293
  Removing 300
  Displaying list of 271
Disconnect 91-94, 102, 142, 250
  Accidental 122-124
  Command to execute 294
  Host accepts calls at any time 143
  Host waits for a call 143
  Hot key to reactivate host 143
  Monitoring with script file 318
  Options

        - Cancel host operation 144
        - Host waits for a call 144
        - Hot-key to reactivate host 143
        - Suspend and connect to another host 144
- DISKCOPY 3
- Disk/drive
    - Getting free space 280
- Display 129
- DOS 3, 308
    - Batch files188
    - Command 188
    - Command line 100
    - DISKCOPY.COM 3
    - Environment string 280
    - Exit to 275
    - Go to 226
    - With automated procedures 176
- DSR (Data Set Ready) 77
- DTR (Data Terminal Ready)250
    - Signal 318
    - State 79

E

- ECHO 250
    - Setting state of 318
- Edit Attribute menu 117
- Eliminate snow 115, 160, 203
- EMULATE 271
- ENCRYPT 273
- END 273
- End date 358
- END MENU 274
- End Session 142-144, 194, 203, 224,240
- END TERMINAL 274
- ENVIRONMENT 280, 348
- Environment string 348
- ERROR 250
- Error correction 168, 198
    - Keystrokes only 168, 198
    - Maximum 168, 198
    - None 168, 198
- Error handling 294
    - With Script files 249
- <Esc> key 317, 293

Even parity 75
EXIT 275
Exit, Allow Incoming Calls 93
Exit, Hot Key To Activate 88, 92-93
Extended memory 121

F

F1=Help 52
File
    Appending string to 342
    Copying 260
    Creating 261
    Deleting 268
    Displaying on screen 331
    Getting date of 278
    Getting size of 279
    Getting time of 279
    Opening 260, 296
    Printing 298
    Reading a line from 300
    Receiving 303
    Recording received data in 325
    Renaming 306
    Sending with current protocol 313
    Setting attribute 278,319
    Setting date for 319
    Setting read/write pointer 311
    Writing string to 342
File format
    .ERR 378
    .SCR 378
    .SCX 378
File Transfer iii, 113, 191, 194, 210-222, 224-225, 238
    ASCII 154
    AWSEND 212-215
    Begin Transfer 219
    Data compression during 113, 221
    Host memory 113
    How to transfer 217
    Sending scan codes during 314
    Setting character delay 317
    Setting protocol for 153, 225, 324
    Tagging/untagging groups of files 218
    Using script file for 305, 312, 313, 314, 315
    With automated procedures 176
File Transfer Screen 216

Filename
    Finding first matching 276
    Finding next matching 276
FIND FIRST 276
FIND NEXT 276
Flow control 75-76
    RTS/CTS 76
    Setting 321
    XON/XOFF 75
Foreground
    Setting colors for 322
Forms 52, 57
Full graphics 169
Function keys
    Programming 291

G

Gateway 24, 25, 30-31
    Class 25
    Multiple 33
General Preferences, 40, 114
GET ENVIRONMENT 280
GET FILE ATTR 278
GET FILE DATE 278
GET FILE SIZE 279
GET FILE TIME 279
GET FREE DISK 280
Global variables 245
Go to DOS 195, 226
GO.BAT 124
GOSUB 281
GOTO 281
Graphics 408
    Testing detection of 351
Graphics display adapter 118
Graphics translation favor 169, 204

H

HANG 282
Hardware
    Flow control 321
    Testing 346
Hardware configuration 19-22, 43, 65-67, 86
    Additional modem initialization string 81

- Adjust speed to modem 81
- Break length 78
- Dial type 80
- DTR state 79
- Flow control 75
- Incoming configuration 25
- Loading with script file 290
- Modem 69
- Parity 74
- Redial attempts 80
- Rings 79
- RTS state 79
- Wait between redials 81
- When to use 66

Hardware Diagnostics 346-354
- Communications Tests 348-349
- Keyboard Tests 353-354
- Overview 347-348
- Video Tests 349-352

Hercules adapter 167, 197, 351-352
Hercules graphics page 199
High memory
- Loading host into 121

Horizontal/vertical synchronization
- Testing 350

Host 16, 18, 27, 34, 45, 50, 88,92,143,178
- Active configuration 108
- Allow scanning while host busy 112
- Beginning operation 88, 89, 90, 91, 92, 93, 94
- Callback phone prefix 106
- Calling a host from a terminal 106, 229
- Calling remote 90, 94,106
- Cancel 144
- Chat mode 193-194
- Computer 47, 138, 148
- Connecting/disconnecting to 91
- Configuration for 109
- Criteria for a host name 145
- Dialing 270
- Disconnect from 142
- Enabled keyboard 202
- Hot key 50, 86-88, 92, 120, 143
- Host Information Fields 45-46, 146, 291
- Installation 4
- Log File 357
- Mainframe 32
- Modem speed configuration 73
- New Entry Information46

  On-line menu 202
  On-line Options 192
  Options during a session 191
  Operating mode 185
  Password 47, 142, 148
  Preparing for automated procedure 178
  RAM requirements 85
  Rebooting Host 196,239
  Unattended 89, 92, 93, 143
  Wait for a call 144
  Wait for a connection 87, 92
Host Accepts Calls At Any Time 185
Host mode on disconnect 185
Host preferences 109-130
  Active keyboards during session 128
  Advanced graphics mode detection 111
  Allow any password on reconnect 126
  Allow pop-up file transfer 113
  Command to load host in high memory 121
  Default callback phone number 119
  Delay before callback attempted 122
  Hot key 120
  Password attempts allowed 127
  Password entry timeout 127
  Passwords are case-sensitive 127
  Time between host screen scans 121
  Use caller password table 125
Host screen status 199
Host session options 202-205
Host Waits for Another Call 185
Hot key 85, 86, 88, 92, 120, 135, 162, 185

I

IBM PC or compatible 104
IBM scan codes
  Sending 314
IF 283
IGNORECASE 251
Inactivity timeout 91, 102, 129, 186
INDEX 283
Information for caller 48
INPUT 285
INPUT KEY 286
INSERT CHAR 284
INSERT LINE 285
Installation 4-14, 38

Int14 69
Integer
    Constants 246
    Variables 243, 244
Intense screen attribute 119, 322
Interrupt 14 Configuration 19
Interrupt drivers 69
IRQ (interrupt request) 68-69

K

KERMIT 151, 225
Key sequence 45, 372
Keyboard 344, 407
    Active 91
    Control 354
    Functions 366-367
    Input data from 285, 287
    Input one character from 286
    Remote not working 101
    Remote terminal 231
    Sequences 365-367
    Special 200
    Testing lights 354
    Type 347,371
KEYBOARD FLUSH 287
KEYBOARD HIT 288
Keyboard tests 353-354
KEYHIT 251
Keypress
    Checking for 288
Keystroke status line 41
Keystrokes 52, 56
    Screen forms 57
    Terminal configuration 365

L

LAN 23-24
LAN Remote
    Calling An On-line Service Via ACS 35
    Calling LAN Host 26
    Calling On-line Service 29
    Calling On-line Service Via Gateway 32
    Calling Standalone Host 28
    Calling Standalone Host Via Gateway 31

Leading spaces
    Trimming 330
Leased line 80
LET 289
Line
    Deleting 269
    Displaying on screen 331
    Receiving from communications port 304
    Wrap 171
Lines to display on terminal 121
LINK 290
LOAD CONFIG 290
LOAD FKEYS 291
LOAD HOSTINFO 291
LOAD TRANSLATION 292
Local Area Network See LAN
Log calls from this caller 103
Log file 103
    Host 357
    Remote 357
Log files 344
    Billing summary report 362
    Displaying on screen 358
    End date 358
    Exporting to database format 360
    Filenames 355, 358
    Formatting 359
    History 357
    Printing 358, 359
    Report destination 358
    Report format 359
    Reports 356
    Start date 357
    Storing reports on disk 358
    Types 357
Log Session 149
Logging 149
Logical operators
LOWER 292
Lowercase
    Converting characters to 292
LPT1/LPT2/LPT3 163

M

Main menu
    returning control to 274

Mainframe connections 101, 229
Manual modem 71, 72, 73, 81
Mark parity 75
Master password 130, 145, 161
  Host 126
Max data rate 73
Maximize display speed 112
MCGA adapter 352
MD 293
Memory 113
  Loading host in high 121
  Optimizing 121
  Removing progam from 93
Memory management software 121
Memory-resident programs 185, 410
Menus 52, 53-56,67
Microsoft Windows 5, 7, 9, 204, 410
Miscellaneous Parameters 371-374
Modem 18, 22, 43, 65, 69, 349
  Configurations 19
  Connection 19, 122, 271
  Main listing 69
  Max speed 73
  Recommended settings for specific 71
  Select from list 54, 44, 70
  Testing 349
  Typing commands directly 137
Modem Response 78
Modify Terminal Configurations 345, 363-364
  Table of keyboard equivalents 231
Monitor 116
  On/off 226
Mouse 165
MultiTech MultiModem 224

N

Name
  Caller 48
  Host 46
  Computer 39, 114, 160
NASI/NCS 34
NetBIOS 24, 26
NetWare/IPX 24, 26
Network configuration 24-25
Network Products ACS^2 24
No parity 74

No. pad characters (0-255) 372
Non-ANYWHERE host 16, 75-76, 132, 149, 192, 223, 345
Non-ANYWHERE session 74, 76, 105, 135
Non-displaying character 367
Non–IBM compatible computer 229
Normal screen attribute 119, 322
Norton pcANYWHERE/LAN v, 239
    Resident 88, 89
    Resident mode 143
Novell NACS 24
Null modem 69
Number
    Dialing 271

O

Odd parity 75
ON CANCEL 293
ON DISCONNECT 294, 318
ON ERROR 294
ON RECEIVE 295
ON TIMEOUT 296, 326, 334
On-line
    Recording time 361
    Features 191
    Parameters for session 152
OPEN 296
Operations file 187
Operators 247
.OPT extension 187
Original Host Mode 185

P

Parallel ports 163, 347
    Testing 347
Parameters 254
    Miscellaneous 371-374
Parity 74-75, 323, 373
Password 47, 49, 51, 89, 93, 98, 127, 130, 132, 138, 142, 148, 179, 251
    Attempts allowed 91, 127
    Case sensitive 127
    Entry timeout 91, 127-128
    Master 130, 161
Path names12

- changing 257
PBX systems 77
PC compatible terminal 239
Phone connections 178
- Noisy 168, 198
Phone number 47, 138, 147
- prefix/suffix161
Physical connections 19
Play Back Recorded Session 375-377
Play Back Saved Screens 377-378
Play Back Session/Screen 345, 375-378
Playback Options
- Begin Session Playback 376
- Save Session To A Raw Binary File 377
- Set Starting Session Number 376
- Start Recording To Another File 377
Pop-up (background) file transfer 85
- RAM requirements 85
Ports
- Testing 349
Predefined operations 176
Preferences 85, 86, 109-110, 133, 152
- Selecting 346
- Parameters 109
- Menu
  - Host 108-130
  - Remote 41, 152-175
Prefix
- Phone number 161
Preprocess A Script 378
PRINT FILE 298
PRINT LINE 298
PRINT STRING 299
PRINTER 299
Printing
- Destination 103, 163, 170
- Options 195, 203
  - Print To Host And Remote 104, 195
  - Print To Host Only 104, 195
  - Print To Remote Only 104, 195, 237
- Spooling 164
PRN 163
Procedure Sessions 181-190
Program
- Running in script file 308
Program colors 116, 161
Programmable function keys 173, 291
PROTOCOL 251, 313

Protocols
    Setting for file transfer 225, 324
Pulse dialing 80

Q

QEMM 121, 414
Quick Connect 59, 84, 87, 132, 136, 137, 227
    Serial Host 59
    Serial Remote 61
    Parameters 138
QUIET 251

R

.RCD extension 151, 375
RD 300
RDA 251
READ LINE 300
READ STRING 301
Read/write pointer 311
Reboot
    Host Computer 196, 239
    Disconnect 122-124, 206
RECEIVE 318, 326
RECEIVE CHAR 302
RECEIVE CLEAR 303
RECEIVE FILE 303, 324
RECEIVE LINE 304
RECEIVE STRING 305
RECORD 251
RECORDFILE 251
Recording 149-151
    On/off 196, 226, 325
Redial attempts 80
Refresh screen 196
Remote 18, 27, 28, 34, 45, 51
    Automated procedures 176
    Calling the host 141
        Direct connection 142
        With a modem 141
    Caller configuration 50
    Chat mode 193-194
    Connect Via List of Hosts 139
    Hot key 51, 138, 142, 162, 192, 193
    Installation 12

  - Logging 149, 357
  - Options during a session 191
  - Printing to195
  - Program options 133
  - Recording 150
  - Status during background file transfer 211
  - View/Modify List of Hosts 145
  - Keyboard 204
  - Mouse 204
  - On-line Options 191
  - Operation iii
  - Options
    - Set by Host 97
  - Preferences
    - Attribute translation 167
    - Changing during ession 152
    - Error correction 168, 198
    - Full graphics 169
    - Graphics translation favor 169
    - Hot key 162
    - Mouse acceleration factor 165
    - Mouse double speed rate 165
    - Print destination 170
    - Remote mouse mode 166
    - Special keyboard handler 170
    - Synchronized screen display 170
- Remote Access Session 166-170
- Remote computing 16-17, 226
  - Disconnect options
    - Host accepts incoming calls 143
  - Hardware 18
  - Saving screens and sessions 375
  - Steps for session 133
  - Session 133
    - Log files 355
    - Playing back recorded 345
- Remote control of Microsoft Windows 410
- Remote Print Device 163
- Remote Screen 204
- Remote session options 193
  - Allow attribute blink 198
  - Attribute translations 197
  - Chat mode 193-194
  - End Session 194
  - File transfer 194
  - Go to DOS 195
  - Hercules graphics page 199
  - Introduction 191

    Modem speed configuration 73
    Print options 195
    Privileges 97
    Reboot host computer 196
    Recording 196
    Refresh screen 196
    Save screen 197
    Special options 197
    Voice/data switch 201
Remote terminal 363
    Keyboard 231
    Session options 235
    Special key sequences 234
Remove from memory 93
REN 306
Report destination 358
Report format option 359
Requirements
    MS-DOS 2.0 1
Reserved variables 245, 250-252
RESET 306
Reset Screen 227
RESULT 251
RETURN 307
Reverse video 322
Ring indicator (RI) 77
Ring number to answer on 79
Rings 79
RLINEEND 251
ROW 251
RS-232 signal 318, 325, 349
RTS (Request To Send) 79, 251, 325
RTS/CTS 76, 321
RUN 308
Run Script 190, 203, 225, 242
RXSTRING 251

S

Save sessions/screens 197, 227, 309,375
Scan codes
    Testing for 354
Scanning
    Delay 121
    Frequency 199
.SCN extension 227
.SCR extension 378

Screen
    Attributes 370
        Setting 316
    Clearing 257, 258
    Color attributes 119, 322
        Intense 119
        Normal 119
        Reverse 119
    Colors
        Color menu 118
        Current palette 119
        Edit attribute 117
        Graphics display adapter 118
    Display
        Adjusting 121
    Forms 57
    Handling 171, 172, 269, 318, 322
        During file transfer 324
    Information box 55
    Playing back recorded 345
    Restoring a saved 309
    Save 377
        Set starting screen number 378
    Wrap 172
SCREEN RESTORE 309
SCREEN SAVE 309
Screen Sequences 368-371
Screens & keystrokes 52
SCRIPT 310
Script file 151
    Branching 281
    Calling a subroutine 281
    Commands 247, 252
    Concepts 243-248
    Conventions 252
    Defined 242
    Directives 248
    Ending 273-274
    Error handling 249, 294
    Error values 254
    Exiting 275
    Linking 290
    Loading host information 291
    Loading translation table 292
    Parameters 255
    Passing control to another 310
    Passing control to terminal mode 274
    Processing

        - Conditional 283
        - Esc key during 293
    - Programming function keys 291
    - Running 190, 242,249
    - Running a DOS program with 308
    - Subroutines 307
    - Termination mode with 330
    - Variables 243
- Script lines 246-248
- .SCX extension 378
- Seconds between redials 81
- Seconds to wait after dial 79
- Security menu 89, 93, 99, 101, 122, 106, 113, 122, 124, 129, 195
    - Caller information 130
    - Caller table 125
    - Hardware configurations 130
    - Host information 130
    - Master password 130
    - Preferences 130
- SEEK 311
- Select Active Configuration 50, 84, 108
- Select recording file 150
- Send buffer
    - Clearing 312
- SEND CHAR 312
- SEND CLEAR 312
- SEND FILE 313, 324
- SEND LINE 314
- SEND SCANCODE 314
- SEND STRING 315
- Serial communication port 19, 68, 349, 402
    - Connections 325, 334
    - Device 68, 323-325
        - Break signal 256
    - Testing 347
    - Type in commands directly to 137
- SET ATTRIBUTE 316
- SET CHARDELAY 317
- SET DISCONNECT 318
- SET DTR 318
- SET ECHO 318
- SET FILE ATTR 319
- SET FILE DATE 319
- SET FILE SIZE 320
- SET FILE TIME 320
- SET FLOW 321
- SET IGNORECASE 322
- SET IGNORECASE ON 328

SET PALETTE 322
SET PARITY 323
SET PROTOCOL 313, 324
SET QUIET 324
SET RECORD 325
SET RTS 325
SET SPEED 325
SET TIMEOUT 326
SET TRANSLATION 327
SET CANCEL 317
Sharing Modems Using A Gateway 30
Sharing Modems Using An ACS 34
Shift 353
SLINEEND 252, 314
Snow 115, 160, 203
  Testing for 350
Software flow control 321
Spaces
  Trimming leading and trailing 330
Speaker
  Sounding the 256
Special keyboard handler 101, 114, 170, 200
Special Options 197-200, 203-205
.SPL extension 164
Spool File 164
Start date 357
STRCAT 327
STRCMP 328
String
  Append to file 342
  Command to execute on receipt 295
  Comparing 328
    Setting case-sensitivity during 322
  Concatenation 327
  Converting characters 292
  Decrypting 267
  Encrypting 273
  Extracting portion 330
  Getting length 328
  Locating position within another 283
  Printing a 298
  Reading from a file 301
  Receiving from communications port 305
  Sending 314, 315
  Variables 244
    Filling with value 329
    Storing string value in 330
  Wait for receipt of 336

- Writing to file 342

STRLEN 328

STRSET 329

Subroutine
- Calling a 281
- Ending 307

SUBSTR 330

Suffix
- Phone number 161

Suspend and connect to another host 144

Synchronized display 170, 200

System.AW0 11

System.INI 8, 10, 11, 411, 412

T

TBE 252

Technical support 88, 92, 143

Telephone line connections 65

Terminal 330
- Custom 105, 364
- File Transfer 238
- Non-ANYWHERE remote 104, 363
- PC-compatible 239
- Printing 237
- Reboot 239
- Scrolling 236
- 25th line of 236

Terminal configuration
- Auto-wrapping 373
- Clear terminal with attribute 373
- Cursor movement and positioning 369
- Hardware diagnostics utility 346
- Height and width 371
- Key sequences 372
- Miscellaneous parameters 371
- Modifying 345
- Number pad characters (0-255) 372
- Norton pcANYWHERE compatible 374
- Offset for position 372
- Parity 373
- PC attributes 373
- Row and column addresses 372
- Row or column first 372
- Rules for 370
- Scan code keyboard 371
- Screen attributes 368, 370

    - Scrolling
        - Bottom right 373
    - Send position in ASCII 372
    - X-OFF character 374
    - X-ON character 373
    - Keyboard equivalents 231
- Terminal emulation 29, 47, 135, 149, 171-175, 345, 364, 406
    - command 272
    - Norton pcANYWHERE 149
    - Resetting 306
    - Software 374
    - Using script file for 330
    - VT-220 149
- Terminal Emulation Session 151, 171-174
- Terminal mode 137-138
        - Passing control to 274
        - With a non-ANYWHERE host 191
- Terminal Options Menu 192,223-228
- Terminal Parameters 171, 365-374
    - Setting 365
- Terminal Settings 227-228
- Terminal type 104, 142, 229, 271, 363
    - Ask caller 104, 230
- Testing
    - AUTOEXEC.BAT 348
    - Colors 352
    - Communications 348
    - Cursor 351
    - Graphicsdetection 351
    - Keyboard lights 354
    - Modem 349
    - Parallel ports 347
    - Ports 349
    - Scan codes 354
    - Serial ports 347
    - Signal status 349
    - Snow 350
    - Toggle keys 353
    - Video modes 352
    - Video RAM conflicts 352
- 3COM 24
- TIME 252
- Time
    - Setting for file 320
    - Wait for specific 337
    - Waiting for specified 337
    - Allowed online 105
    - Between host screen scans 121

- Between retries 184
- Timeout 127, 252
  - Command to execute upon 296
  - Setting value for 326
- TLINEEND 252, 331
- Toggle keys
  - Testing 353
- Tone dialing 80
- Trailing spaces
  - Trimming 330
- TRANSLATION 252
- Translation table 174, 292, 327
- TRIM 330
- TYPE 324
- TYPE FILE 331
- TYPE LINE 332
- TYPE STRING 333
- Type-ahead characters 287

U

- Unattended host operation 89, 92, 93, 144
- UPPER 333
- Uppercase
  - Converting characters to 333
- Use caller information list 86, 125
- User-defined variable names 243-244
- Utilities 85, 343
  - Hardware Diagnostics 346

V

- Variables 243-246
  - Integer 243
  - String 243
- VGA adapter, 352
- Video
  - RAM 347
  - Testing adapters 350
  - Display 344
- Video Tests 349
- View Log Files 355-362
  - Start date 357
- View/Modify Directory Entry 140
- View/Modify List of Callers 84, 95-96
- View/Modify List of Hosts 132, 145

View/Modify Procedure 180
Voice-first connection 93, 141
Voice/Data switching 201
VT-220 terminal emulation mode 135, 149, 223

W

WAIT 318, 324, 326
Wait after dial 79
WAIT CARRIER 334
Wait For A Call 93, 141
Wait for a connection 50, 87, 92
WAIT RECEIVE 334
WAIT SILENCE 336
WAIT STRING 336
WAIT TIME 337
WAIT UNTIL 337
WINDOW CLOSE 338
WINDOW OPEN 339
WINDOW SELECT 341
Windows See Microsoft Windows
Word processing programs
    Keyboard equivalents 234
WordPerfect 18, 414
WRITE LINE 342
WRITE STRING 342

XYZ

XMODEM 151, 224-225, 238
XMODEM-1K 151, 225
XMODEM-1K-G 225
XMODEM-CRC 151, 225
XON/XOFF 75, 321, 374
YMODEM 151, 225
YMODEM-G 151, 225
ZMODEM 151, 225
    File transfer preferences 158
        Allow auto downloading 159
        Crash recovery 159
        Data window 159
        Error checking method 158

SYMANTEC.™

ymantec Corporation
0201 Torre Avenue
upertino, CA 95014-2132
08/253-9600

mantec and The Norton pcANYWHERE are trademarks of Symantec Corporation. Other brands and products are trademarks of their respective holders.
1991 Symantec Corporation. All rights reserved. Printed in the U.S.A. 106280JR 7/93

Made from 100%
Recycled Material

07-30-00151
PAC010 9/91